Using Enterprise Architect - UML Modeling Tool

Enterprise Architect is an intuitive, flexible and powerful UML analysis and design tool for building robust and maintainable software.

This booklet describes the Enterprise Architect user interface facilities and tools.

Copyright © 1998-2010 Sparx Systems Pty Ltd

Using Enterprise Architect - UML Modeling Tool

© 1998-2010 Sparx Systems Pty Ltd

All rights reserved. No parts of this work may be reproduced in any form or by any means - graphic, electronic, or mechanical, including photocopying, recording, taping, or information storage and retrieval systems - without the written permission of the publisher.

Products that are referred to in this document may be either trademarks and/or registered trademarks of the respective owners. The publisher and the author make no claim to these trademarks.

While every precaution has been taken in the preparation of this document, the publisher and the author assume no responsibility for errors or omissions, or for damages resulting from the use of information contained in this document or from the use of programs and source code that may accompany it. In no event shall the publisher and the author be liable for any loss of profit or any other commercial damage caused or alleged to have been caused directly or indirectly by this document.

Printed: May 2010

Publisher

Sparx Systems

Managing Editor

Geoffrey Sparks

Technical Editors

Simon McNeilly
Bill Mioch
Brad Maxwell

Special thanks to:

All the people who have contributed suggestions, examples, bug reports and assistance in the development of Enterprise Architect. The task of developing and maintaining this tool has been greatly enhanced by their contribution.

Table of Contents

Foreword 1

Modeling Tool Features 2

Start Enterprise Architect 3
The User Interface 4
The Start Page 6
Remove Recent Projects 7
Model Templates 9
Business Process Model Template 10
Requirements Model Template 10
Use Case Model Template 11
Domain Model Template 11
Class Model Template 13
Database Model Template 13
Component Model Template 14
Deployment Model Template 14
Testing Model Template 16
Maintenance Model Template 17
Project Model Template 17
The Project Browser 19
Order Package Contents 20
Set Default Behavior 21
Project Browser Toolbar 22
Project Browser Icon Overlays 23
Model (Root Node) Context Menu 23
Package Control Sub-Menu 25
Package Menu 25
Add Sub-Menu 27
Documentation Sub-Menu 27
Code Engineering Sub-Menu 28
Execution Analyzer Sub-Menu 28
Import/Export Sub-Menu 29
Contents Sub-Menu 29
Element Menu - Project Browser 30
Add Sub Menu 31
Diagram Menu - Project Browser 31
Operation Menu - Project Browser 32
The Main Menu 33
The File Menu 35
Print Preview 35
Save Model Copy or Shortcut 36
Create Copy Or Shortcut 37
Capture Current Work Environment 38
Encrypt Repository Password 40
The Edit Menu 40
Paste Elements Submenu 41
The View Menu 41
View Submenus 42
The Project Menu 44
Documentation Submenu 44
Source Code Engineering Submenu 45
Execution Analyzer Submenu 46

© 1998-2010 Sparx Systems Pty Ltd

Database Engineering Submenu ... 47
Transformations Submenu ... 47
Model Validation Submenu ... 47
Web Services Submenu ... 47
XML Schema Submenu ... 48
Security Submenu ... 48
Version Control Submenu ... 48
Import/Export Submenu ... 49
The Diagram Menu ... 49
The Element Menu ... 51
Inline Features Submenu ... 52
Advanced Submenu ... 52
Source Code Engineering Submenu ... 53
Appearance Submenu ... 53
Position Submenus ... 53
The Tools Menu ... 54
Data Management Submenu ... 55
Manage .EAP File Submenu ... 55
The Customize Dialog ... 56
Customize Commands ... 57
Customize Toolbars ... 58
Custom Tools ... 60
Open External Tools ... 62
Pass Parameters to Applications ... 63
Customize Keyboard ... 64
Customize Menu ... 66
Customize Options ... 67
The Add-Ins Menu ... 67
The Settings Menu ... 68
The Window Menu ... 69
The Help Menu ... 70
The Enterprise Architect Toolbox ... 71
UML Toolbox Appearance Options ... 73
UML Toolbox Shortcut Menu ... 75
Common Group ... 77
Use Case Group ... 79
Class Group ... 79
Object Group ... 80
Composite Group ... 81
Communication Group ... 81
Interaction Group ... 82
Timing Group ... 82
State Group ... 83
Activity Group ... 83
Component Group ... 84
Deployment Group ... 85
Profile Group ... 86
Metamodel Group ... 87
Analysis Group ... 88
Custom Group ... 89
Requirement Group ... 90
Maintenance Group ... 90
User Interface Group ... 91
WSDL Group ... 92
XML Schema Group ... 92
Data Modeling Group ... 93
Workspace Toolbars ... 94
Default Tools Toolbar ... 95
Project Toolbar ... 95

Code Generation Toolbar ... **96**
UML Elements Toolbar ... **97**
Diagram Toolbar ... **98**
Current Element Toolbar ... **98**
Current Connector Toolbar ... **99**
Format Toolbar ... **99**
Workspace Layouts ... **100**
Status Bar ... **103**
Rich Text Notes Toolbar ... **104**
Diagram Tabs ... **106**
View Options ... **107**
Diagram View ... **107**
Element List ... **108**
Element List Options ... 111
Model Views ... **113**
Model Views Toolbar ... 114
Model Views Context Menus ... 115
Model Views Operations ... 117
Diagram Slide Show ... 119
Model Search ... **121**
Use the Model Search ... 123
Work On Objects In Search ... 124
Search Definitions ... 125
Create Search Definitions ... 128
Pre-defined Searches ... 131
Add Filters ... 132
Fields and Conditions ... 133
The Web Browser ... **135**
Arrange Windows and Menus ... **136**
Dock Windows ... **136**
Autohide Windows ... **138**
Tear Off Menus ... **139**
Dockable Windows ... **140**
The Properties Window ... **140**
The System Window ... **142**
The Resources Window ... **143**
Favorites ... 145
The Source Code Viewer ... **145**
The Scripter Window ... **148**
Scripts Tab ... 149
Script Group Properties ... 152
Console Tab ... 152
The Element Browser ... **154**
The Relationships Window ... **157**
The Scenarios & Requirements Window ... **158**
The Traceability Window ... **160**
The Notes Window ... **160**
The Tagged Values Window ... **162**
Assign a Tagged Value to an Item ... 164
Assign Notes to a Tagged Value ... 165
Show Duplicate Tags ... 166
The Project Management Window ... **167**
The Output Window ... **168**
The Tasks Pane Window ... **168**
The Pan & Zoom Window ... **170**
Diagram Filters Window ... **170**
Code Editors ... **173**

© 1998-2010 Sparx Systems Pty Ltd

Intellisense ... **176**
Code Editor Key Bindings ... **177**
Code Editor Context Menu ... **182**
Script Editor ... **183**
The Quick Linker ... **186**
Create New Elements ... **186**
Create Connectors ... **188**
Defaults and User Settings ... **189**
Configure Local Options ... **189**
General ... 190
Standard Colors ... 192
Diagram ... 193
Appearance ... 195
Set Default Fonts ... 196
Behavior ... 198
Sequence ... 199
Objects ... 201
Element Visibility ... 202
Links ... 203
Communication Message Colors ... 204
XML Specifications ... 206
Visual Styles ... **207**
Keyboard Shortcuts ... **208**
Team Review ... **213**
Context Menu ... **214**
Add a New Category ... **216**
Add a New Topic ... **217**
Add a New Post ... **217**
Reply to a Post ... **219**
Edit an Item ... **219**
Team Review Editor ... **220**
Add Object Links ... **221**
Team Review Resources ... **221**
Search Team Review ... **222**
Copy Path to Clipboard ... **222**
Team Review Options ... **223**
Team Review Connections ... **223**
Spell Checking ... **225**
Using the Spell Checker ... **225**
Correcting Words ... **226**
Select a Different Language ... **227**
Index **229**

Foreword

This guide describes the Enterprise Architect user interface facilities and tools.

© 1998-2010 Sparx Systems Pty Ltd

Modeling Tool Features

This section provides a detailed exploration of the Enterprise Architect UML Modeling tools and features for modeling software systems and business processes, including:

- Starting Enterprise Architect 3
- The User Interface 4
- The Start Page 6
- Model Templates 9
- The Project Browser 19
- The Main Menu 33
- The Enterprise Architect UML Toolbox 71
- Workspace Toolbars 94
- Diagram Tabs 106
- The Element List 108
- Model Views 113
- Model Searches 121
- The Web Browser 135
- Arrange Windows and Menus 136
- Dockable Windows 140
- Code Editors 173
- The Quick Linker 186
- Defaults and User Settings 189
- Keyboard Shortcuts 208
- The Team Review 213
- Register Add-In (see *Getting Started With Enterprise Architect*)
- The Spell Checker 225

1 Start Enterprise Architect

When you install Enterprise Architect on your computer, a new program folder called *Enterprise Architect* is created in your **Start** menu (unless you changed the default name during installation).

Start Enterprise Architect

You can start Enterprise Architect from the icon created on your Windows desktop during installation, or alternatively:

1. Open the Windows **Start** menu.
2. Locate the Enterprise Architect program folder.
3. Select **Enterprise Architect**.

After a short pause, the Start Page 6 displays. From this page you can:

- Open a project file (.EAP file)
- Create a new project (.EAP file)
- Connect to a DBMS repository (Corporate and extended editions).

(For information on the above three options, see *UML Model Management*.)

Note:

By default, when you install Enterprise Architect, an empty 'starter' project called 'EABase.EAP' is installed, as well as an example project named 'EAExample.EAP'. We recommend that new users select the 'EAExample' file and explore it in some detail while you become familiar with UML and software engineering using Enterprise Architect.

To begin a guided exploration of Enterprise Architect immediately, go to the *Quick Start - Create a Project* topic (see *Getting Started with Enterprise Architect)*.

See Also

(For users of the Corporate, Business and Software Engineering, Systems Engineering and Ultimate editions) In *UML Model Management*:

- *Connect to a MySQL Repository*
- *Connect to an SQL Server Repository*
- *Connect to an Oracle Repository*
- *Connect to a PostgreSQL Repository*
- *Connect to an Adaptive Server Anywhere Repository*
- *Connect to an MSDE Server Repository*

© 1998-2010 Sparx Systems Pty Ltd

2 The User Interface

The *Enterprise Architect Application Workspace* consists of a number of windows, menus and toolbars as described below. Together these elements provide a simple and flexible software engineering environment. In concept the Application Workspace is similar to programs such as Microsoft Outlook and the Microsoft Visual Studio application suite; if you have used these applications you should find the Enterprise Architect interface quite familiar.

Enterprise Architect in Action

A demonstration of Enterprise Architect in use is provided on the Sparx Systems website.

Workspace Components

This section outlines the components of the Enterprise Architect Application Workspace. To obtain further information on specific features, follow the hyperlinks in each description.

Main Menu and Toolbars

At the top of the workspace are the **Main Menu** 33 and toolbars 94. The **Main Menu** provides access to further submenus. There are several toolbars, which you can hide or display as necessary.

Context Menus

Throughout Enterprise Architect, if you right-click on work areas, lists and objects, Enterprise Architect displays a menu of options specific to the work context. For examples, see:

- Package Context Menu (Project Browser) 25
- Diagram Context Menu (Project Browser) 31
- Element Context Menu (Project Browser) 30
- Diagram Context Menu (Diagram) (see *UML Modeling with Enterprise Architect – UML Modeling Tool*)
- Element Context Menu (Diagram) (see *UML Modeling with Enterprise Architect – UML Modeling Tool*).

Key Combinations

Many main menu and context menu options have alternative key combinations to perform the same operation. Instead of displaying a menu and selecting the required option, you can press the key combination. See Keyboard Shortcuts 208 for a full list of key combinations and their functions, or display the Help Keyboard 212 dialog (select the **Help | Keyboard Accelerator Map** menu option). You can also customize 64 these function keys.

Enterprise Architect UML Toolbox

The Enterprise Architect UML Toolbox 71 is an Outlook-style toolbar from which you can select model elements and relationships to add to your modeling diagrams. This is an important feature of Enterprise Architect, as it provides all the components and connectors that you use to create your models in whatever diagrams are appropriate.

Diagram View

The large central area of the Enterprise Architect display is the Diagram View 107. This is where you can arrange new model elements and set their characteristics in a model diagram. Note that when you first open Enterprise Architect there is no active diagram; you must create and/or open the required diagram.

Project Browser

The Project Browser 19 is used to navigate your project. Double-click on package icons to open them and display the diagrams and elements they contain. Similarly, double-click on elements to open them, and on diagrams to display them in the Diagram View. You can drag elements from the Project Browser to add them to diagrams. (See *UML Modeling with Enterprise Architect – UML Modeling Tool.*)

Model Views

You can set up tailored views of your model, containing sections or organizations of your model that are of particular relevance to you or your team. Model Views 113 are stored in the model and are visible to all users. You can set up Favorites folders to give you easy access (hyperlinks) to commonly-used packages and elements. You also have a My Views model stored locally on your machine and only visible to you, and Technology-defined views that are read only and stored with MDG technologies. You can associate each view with a query-built search that you can run by either double-clicking or expanding it.

Visual Style

You can configure the look and feel 207 of Enterprise Architect to suit your working environment. Options range from a classic windows application to an enhanced XP appearance.

Arranging Windows

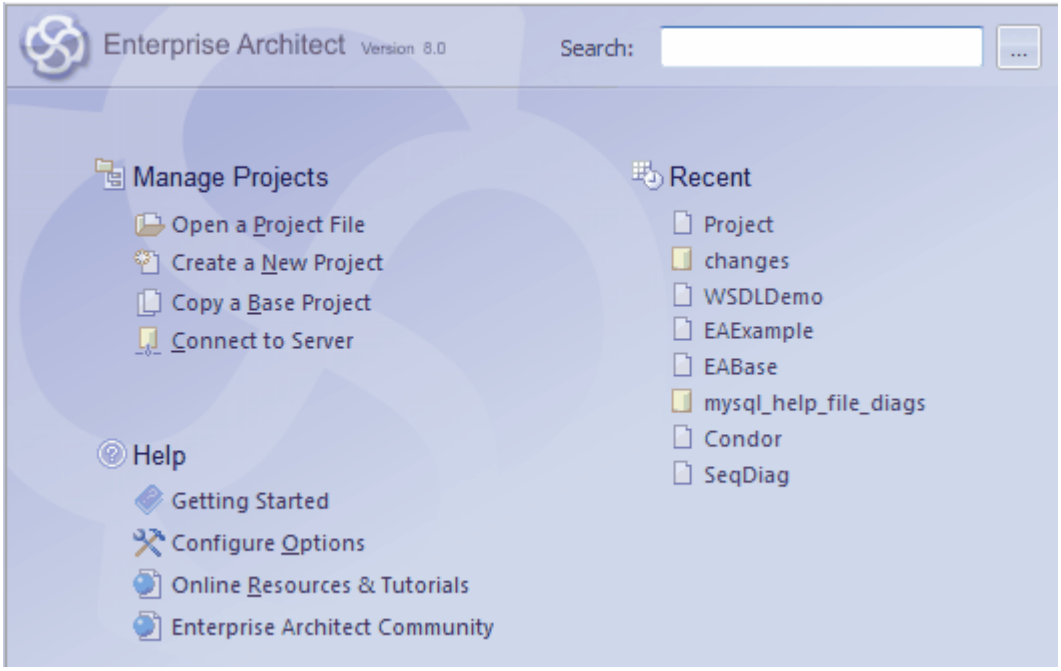
You can rearrange windows and some menus to adapt the screen space to your work habits. You can:

- Dock 136 windows against any edge of the workspace, or move them freely (float them) as you work; for a list of dockable windows, see Dockable Windows 140
- Autohide 138 windows so that they display only when you are actually using them.

© 1998-2010 Sparx Systems Pty Ltd

3 The Start Page

When you start Enterprise Architect, the first page displayed is the Start Page.



This page offers the following options:

Option	Use to
Search	Locate an object in Enterprise Architect. Type the name of the object in this field and click on the **[...]** button. Enterprise Architect displays the results of the search on the Model Search 121 screen. Click on an item in the search results to highlight it in the Project Browser 19.
Open a Project File	Display the Open Project dialog, which you use to open an existing project (where you have more project files than can be listed in the Recent panel). (For information on this option and the next three options, see *UML Model Management*.)
Create a New Project	Save a new project and open the Model Wizard dialog.
Copy a Base Project	Select a different Base Project to generate a new project from.
Connect to Server	Specify a Data Source name to connect to. MySQL, SQL Server, Oracle 9i, 10g and 11g, PostgreSQL, MSDE, Adaptive Server Anywhere, Access 2007 and Progress OpenEdge repositories are supported. **Note:** This feature is available in the Corporate, Business and Software Engineering, Systems Engineering and Ultimate editions.

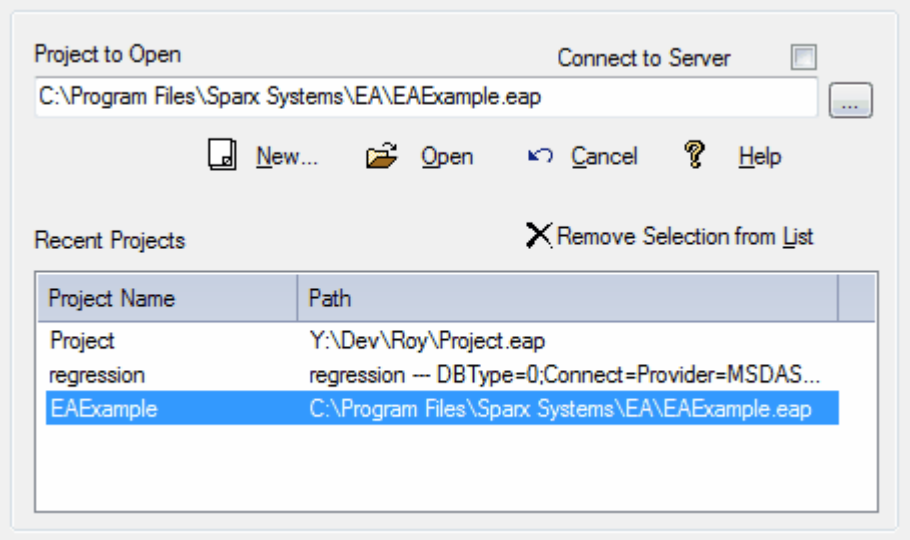
Option	Use to
Getting Started	Open the Tasks Pane 168, to display useful topics and guides for various areas of work in Enterprise Architect.
Configure Options	Display the Help on the Options 189 dialog 189, which enables you to define how Enterprise Architect displays and processes information.
Online Resources & Tutorials	Open the Resources page of the Sparx Systems website, which provides access to a wide range of Enterprise Architect and UML tutorials, demonstrations, examples, Add-Ins and advice.
Enterprise Architect Community	Access the *Sparx Systems Enterprise Architect Community Site*, which contains a range of articles, discussions, tools and resources provided by both Sparx Systems and the Enterprise Architect user community. You must register to use the facilities of the site; you can also register as an author and submit material yourself, for others to read and use.
Recent	Select from a list of the most recently used Enterprise Architect projects (both .EAP files and DBMS connections). Click on the required project to open it. If you have created and used shortcuts 36 to your models, a model might have two entries - one for the model accessed through Enterprise Architect and one for the model accessed through the desktop shortcut. These open the same model, although the shortcut entry also enacts any view profile you have defined. To remove a hyperlink to a project from this list, see Remove Recent Projects 7 .

If your model has a default diagram set (see *UML Modeling with Enterprise Architect – UML Modeling Tool*), the default diagram opens immediately over the top of the Start Page. You can still access the Start Page from the diagram tabs 106 below the diagram. However, if you have set a shortcut view profile, that overrides the default diagram setting.

3.1 Remove Recent Projects

To remove a project *hyperlink* from the Recent list on the Start Page 6, follow the steps below:

1. Select **File | Open Project** from the menu bar or press **[Ctrl]**+**[O]**. The Open Project dialog displays.



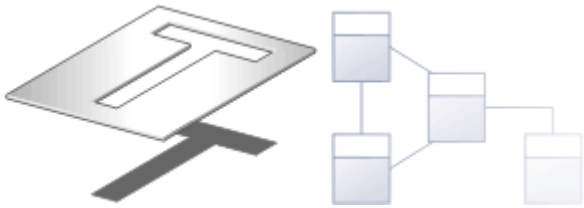
2. In the Recent Projects panel click on the project to remove.
3. Click on the **Remove Selection from List** button.

© 1998-2010 Sparx Systems Pty Ltd

Note:

Removing the hyperlink to a project from the Start Page only removes the link to the project and does not remove the .EAP file from the file system.

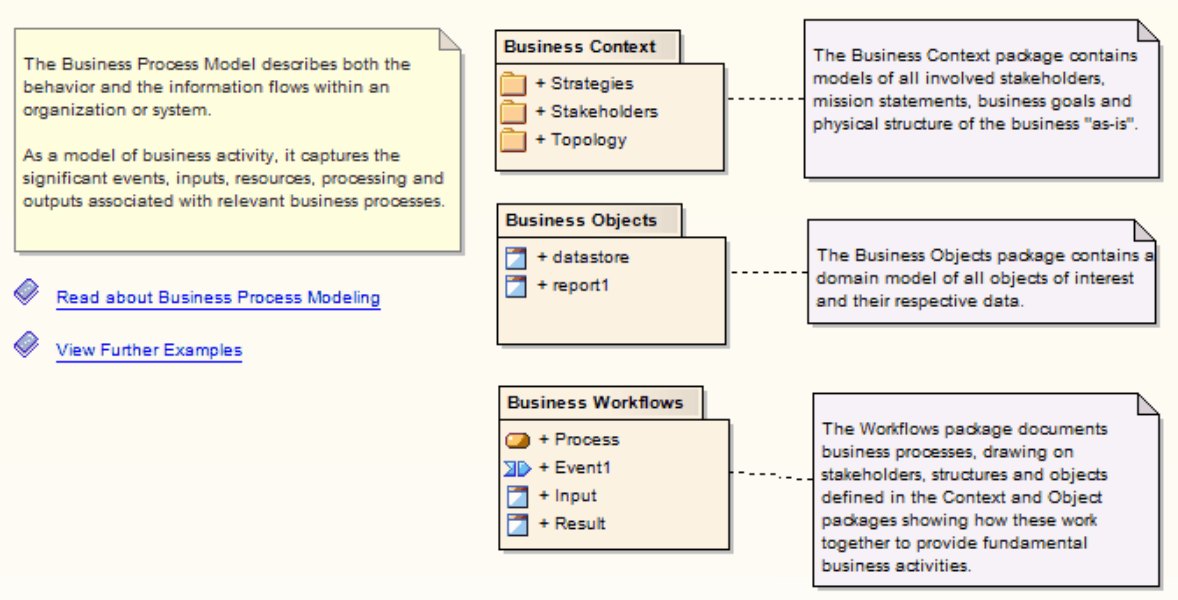
4 Model Templates



The model templates contained in Enterprise Architect are designed to assist in the creation of projects and models for both new and experienced users. Each template provides a framework on which you can create your model. You create models based on the selected templates using the Model Wizard (see *UML Model Management*).

Template Format

All the model templates provided with Enterprise Architect follow the format described below.



Note
The note introduces you to the model template and outlines its purpose.

Help Links
Help hyperlinks provide further information on how to use the model. Depending on the model template, links to examples and other useful information are also provided.

Template
The Template section in the model template provides a framework for creating your own model.

The topics listed below provide an introduction to the terminology and icons used in the model templates, and give you a quick guide to the UML concepts important to the templates and how they are applied in Enterprise Architect.

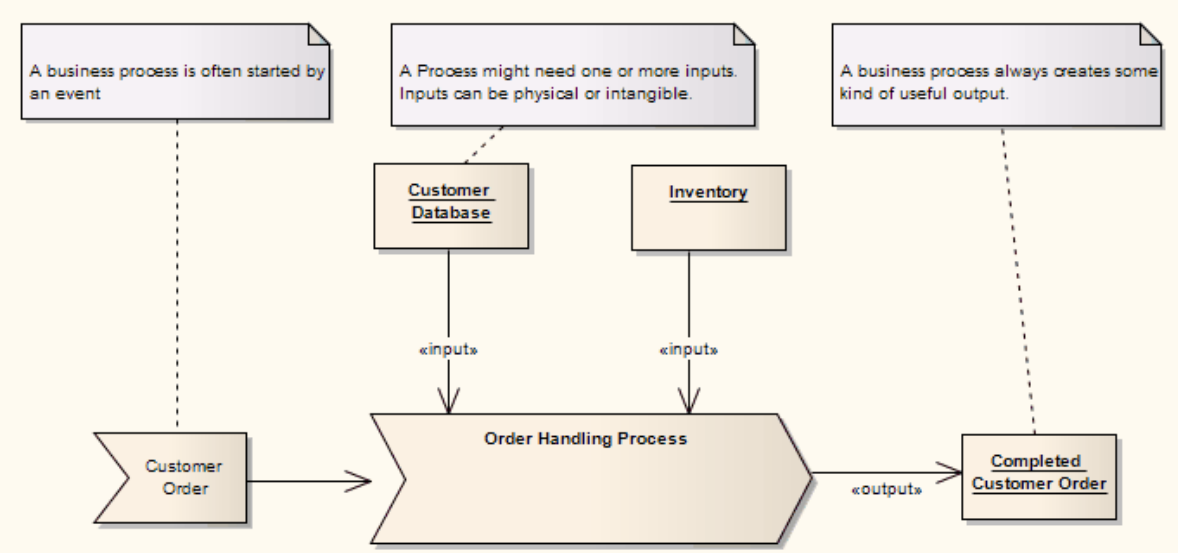
- *Business Process Model Template* 10
- *Requirements Model Template* 10
- *Use Case Model Template* 11
- *Domain Model Template* 11
- *Class Model Template* 13
- *Database Model Template* 13
- *Component Model Template* 14
- *Deployment Model Template* 14
- *Testing Model Template* 16

© 1998-2010 Sparx Systems Pty Ltd

If you are a Technology Developer, you can also create and distribute custom templates as part of your own MDG Technology (see *SDK for Enterprise Architect*).

4.1 Business Process Model Template

The *Business Process Model* describes both the behavior and the information flows within an organization or system. As a model of business activity, it captures the significant events, inputs, resources, processing and outputs associated with relevant business processes.

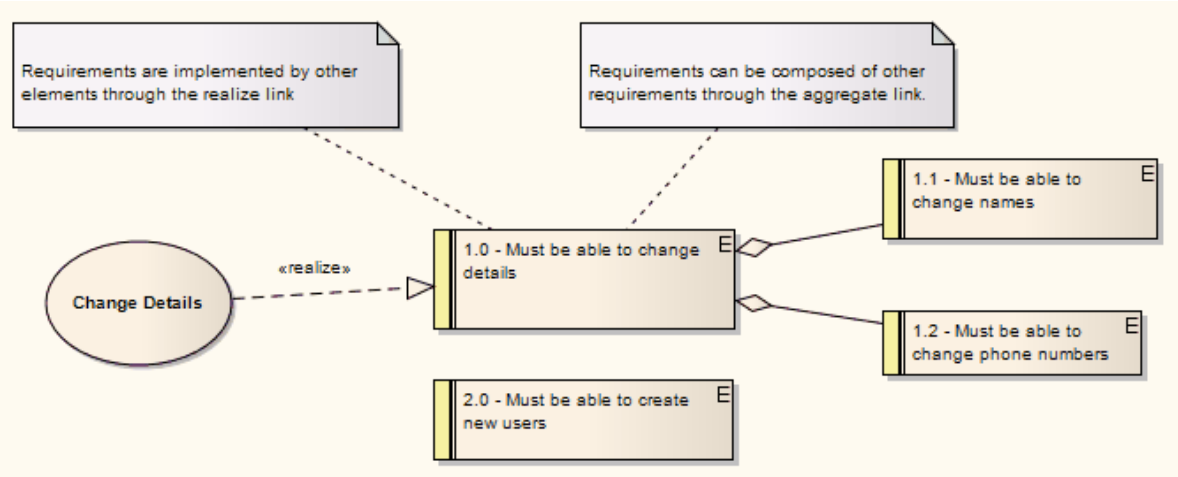


Online Resources

- The Business Process Model

4.2 Requirements Model Template

The *Requirements Model* is a structured catalogue of end-user requirements and the relationships between them. The Requirements Management built into Enterprise Architect can be used to define Requirement elements, connect Requirements to other model elements, connect Requirements into a hierarchy and report on Requirements. (See *Requirements Management.*)

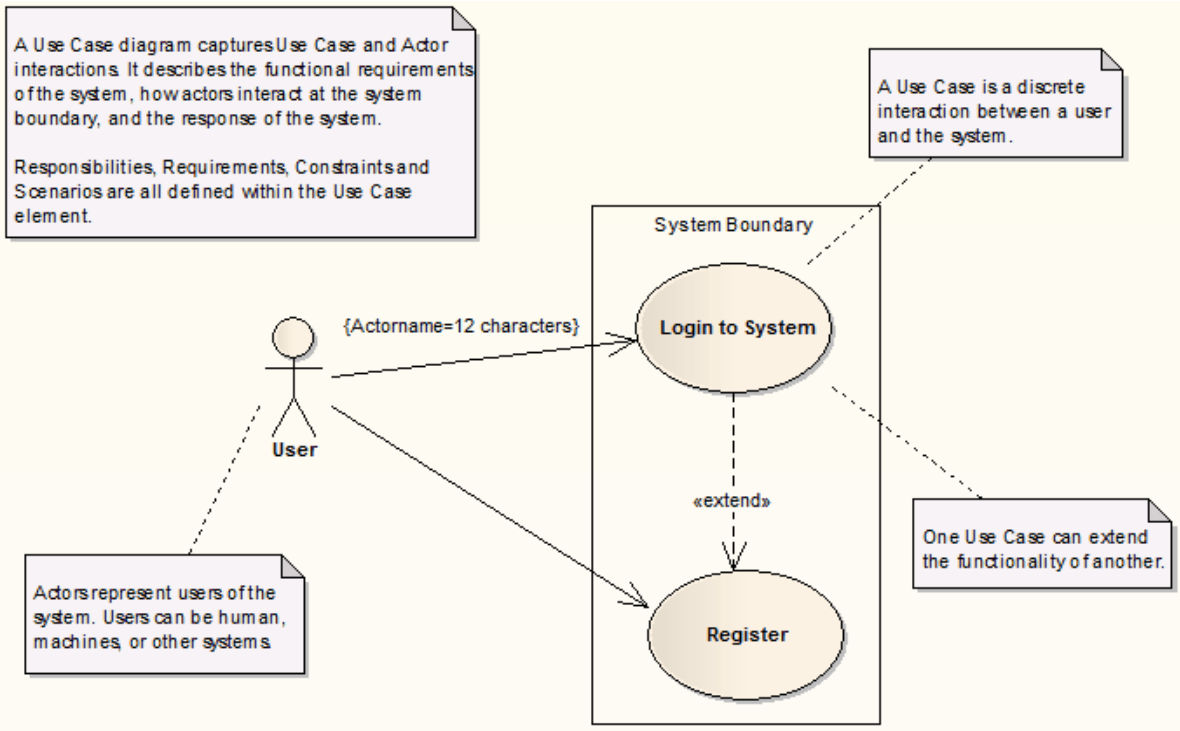


Online Resources

- Requirements Management in Enterprise Architect

4.3 Use Case Model Template

The *Use Case Model* describes a system's functionality in terms of Use Cases. Each Use Case represents a single repeatable interaction that a user or 'actor' experiences when using the system, emphasizing the user's perspective of the system and interactions.



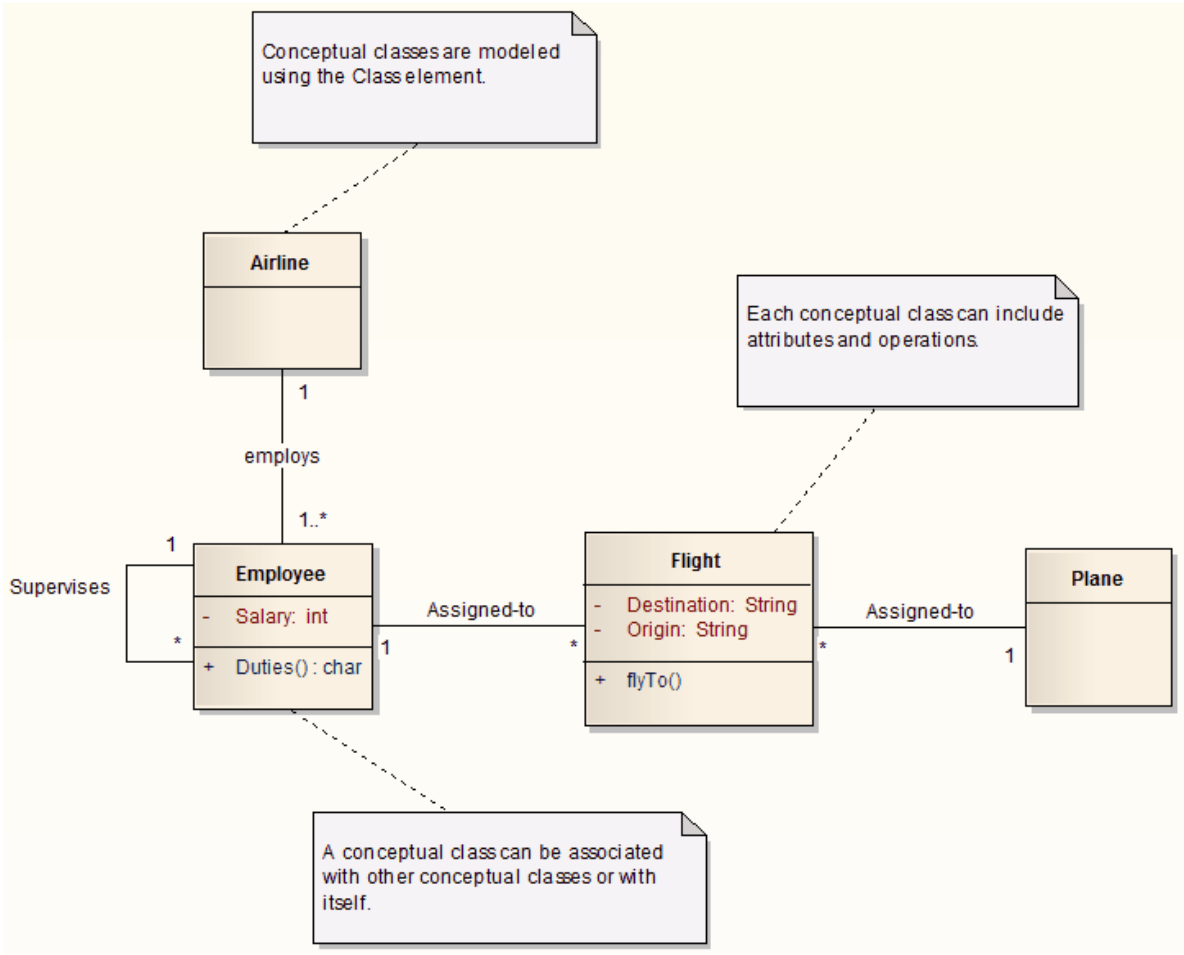
Online Resources

- The Use Case Model

4.4 Domain Model Template

A *Domain Model* is a high-level conceptual model, defining physical and abstract objects in an area of interest to the Project. It can be used to document relationships between and responsibilities of conceptual classes (that is, classes that represent the concept of a group of things rather than Classes that define a programming object). It is also useful for defining the terms of a domain.

© 1998-2010 Sparx Systems Pty Ltd

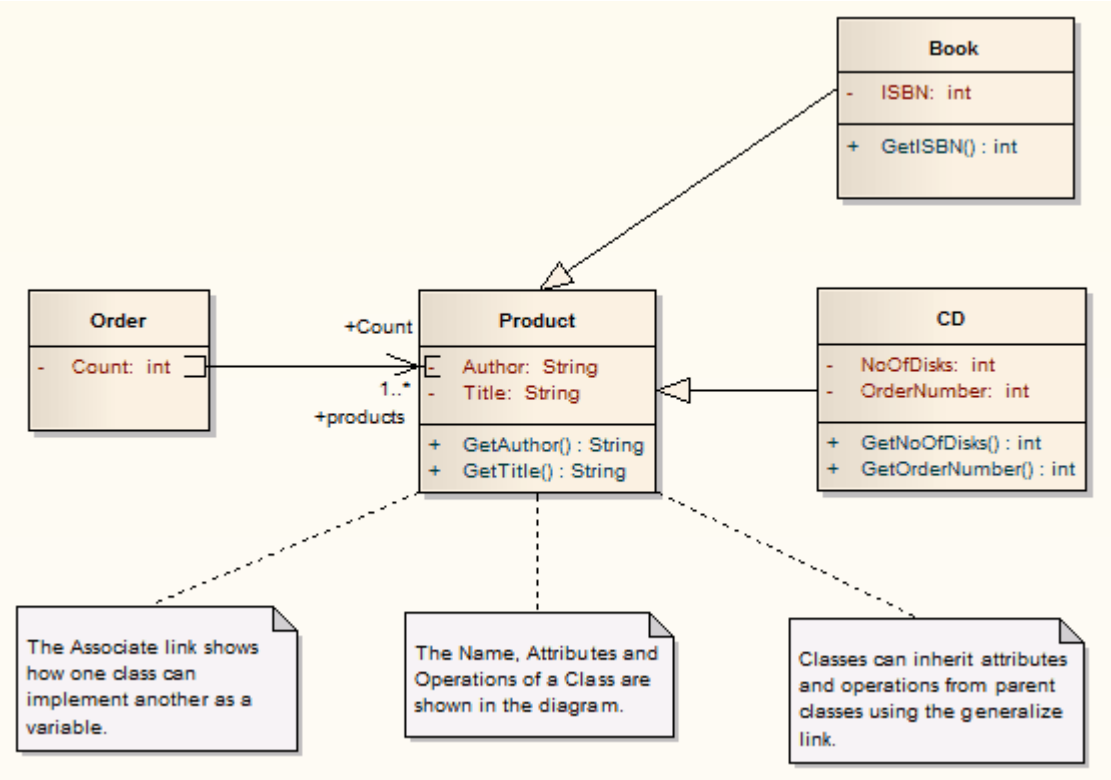


A Domain Model shows:

- The physical and organizational units of the domain; for example, *Employee* and *Flight*
- The relationships between these units; for example, Employee is *assigned to* Flight
- The multiplicity of those relationships; for example, *one* employee can be assigned to *no* flights, *one* flight or *many* flights (represented by the **1** and the ***** at the ends of that relationship). For an explanation of multiplicity, see the Connector Source Role description in *UML Modeling With Enterprise Architect - UML Modeling Tool*.

4.5 Class Model Template

The *Class Model* is a rigorous, logical model of the software system under construction. Classes generally have a direct relationship to source code or other software artifacts that can be grouped together into executable components.

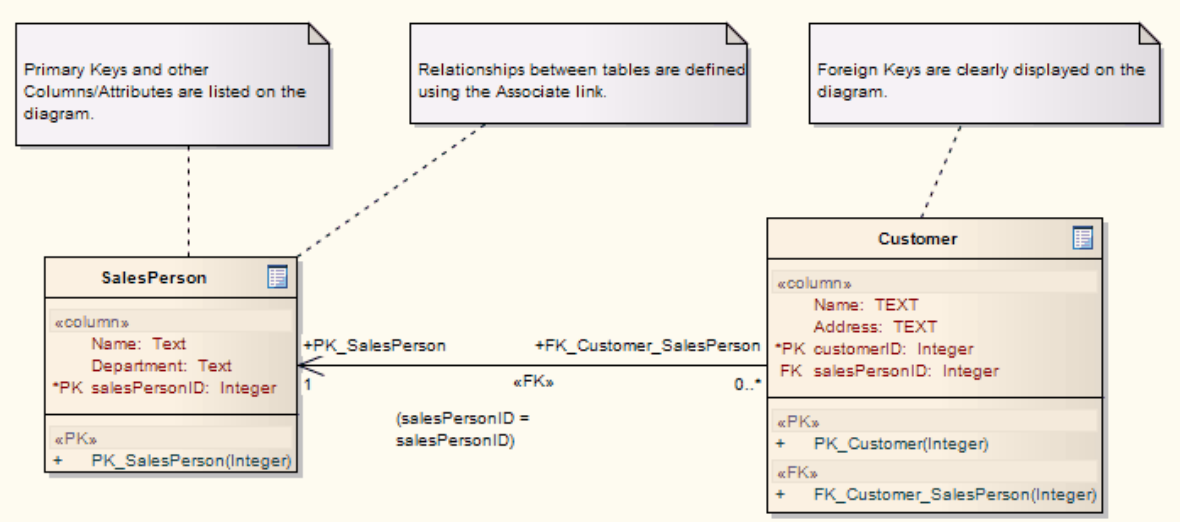


Online Resources

- The Logical Model

4.6 Database Model Template

The *Database Model* describes the data that must be stored and retrieved as part of the overall system design. Typically this means relational database models that describe the tables and data in detail and enable generation of DDL scripts to create and set up databases.



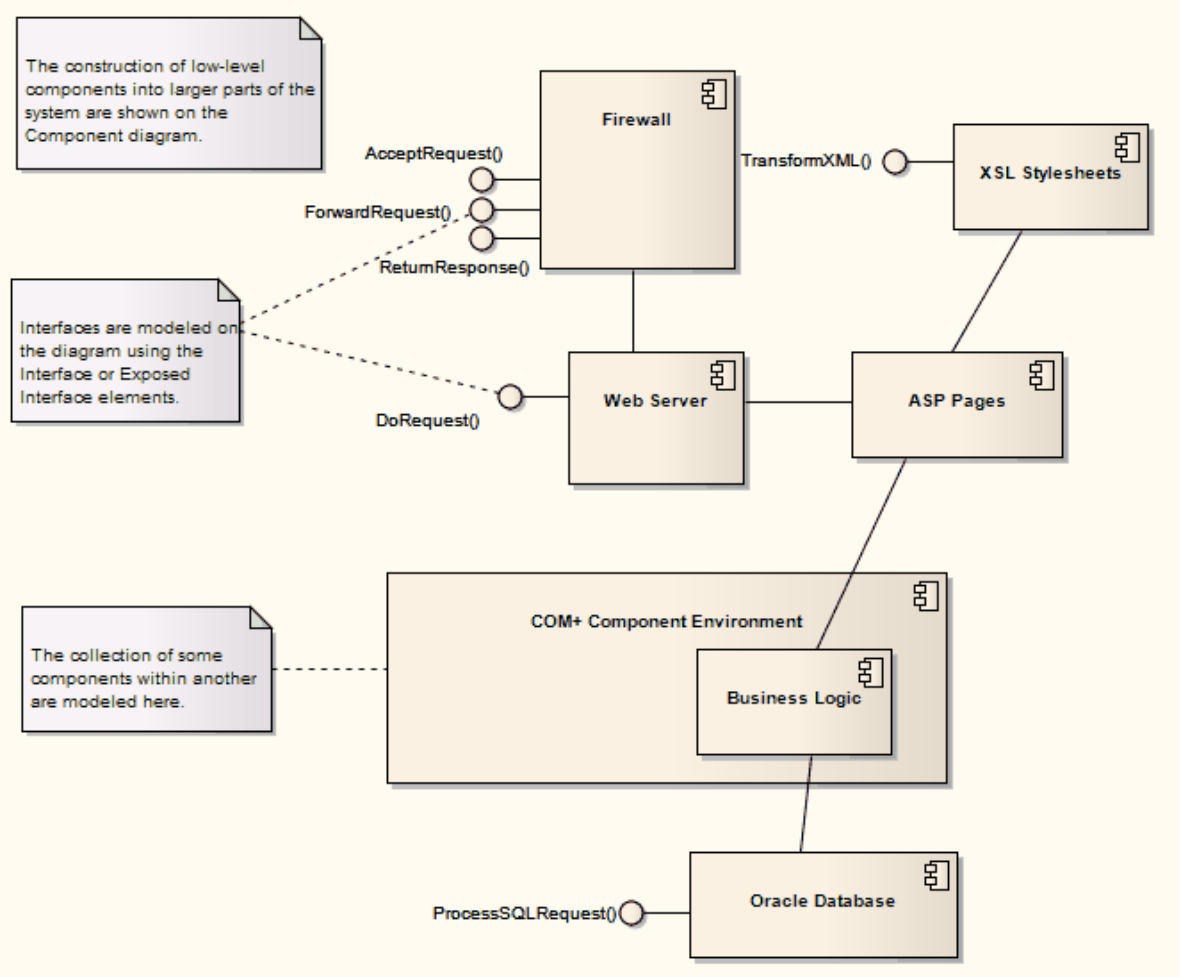
© 1998-2010 Sparx Systems Pty Ltd

Online Resources

- UML Database Modeling

4.7 Component Model Template

The *Component Model* defines how Classes, Artifacts and other low level elements are collected into high level components, and describes the interfaces and connections between them. Components are compiled software artifacts that work together to provide the required behavior within the operating constraints defined in the Requirements model 10.

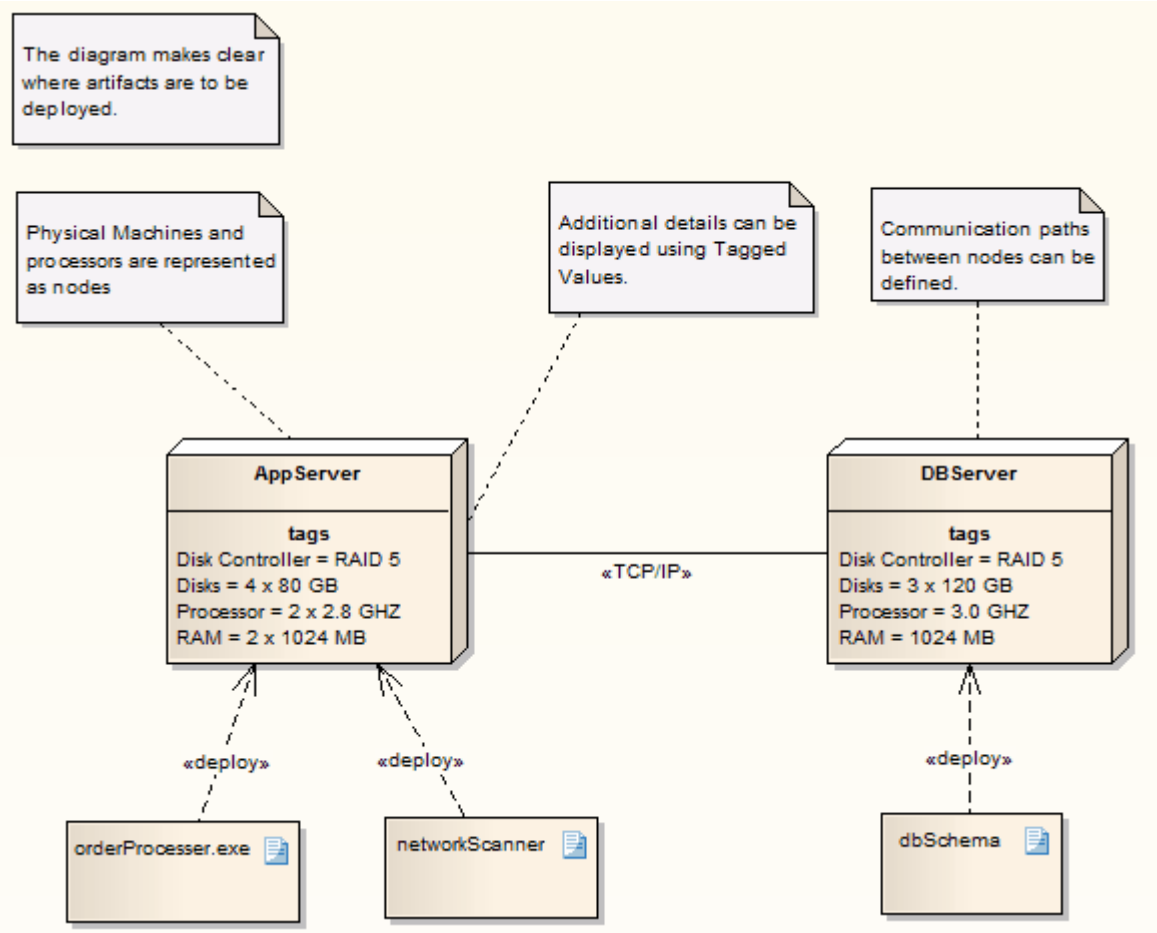


Online Resources

- The Component Model

4.8 Deployment Model Template

The *Deployment Model* describes how and where a system is to be deployed. Physical machines and processors are represented by Nodes, and the internal construction can be depicted by embedding Nodes or Artifacts (see *The UML Dictionary*). As Artifacts are allocated to Nodes to model the system's deployment and roll out (see *Getting Started With Enterprise Architect*), the allocation is guided by the use of deployment specifications.



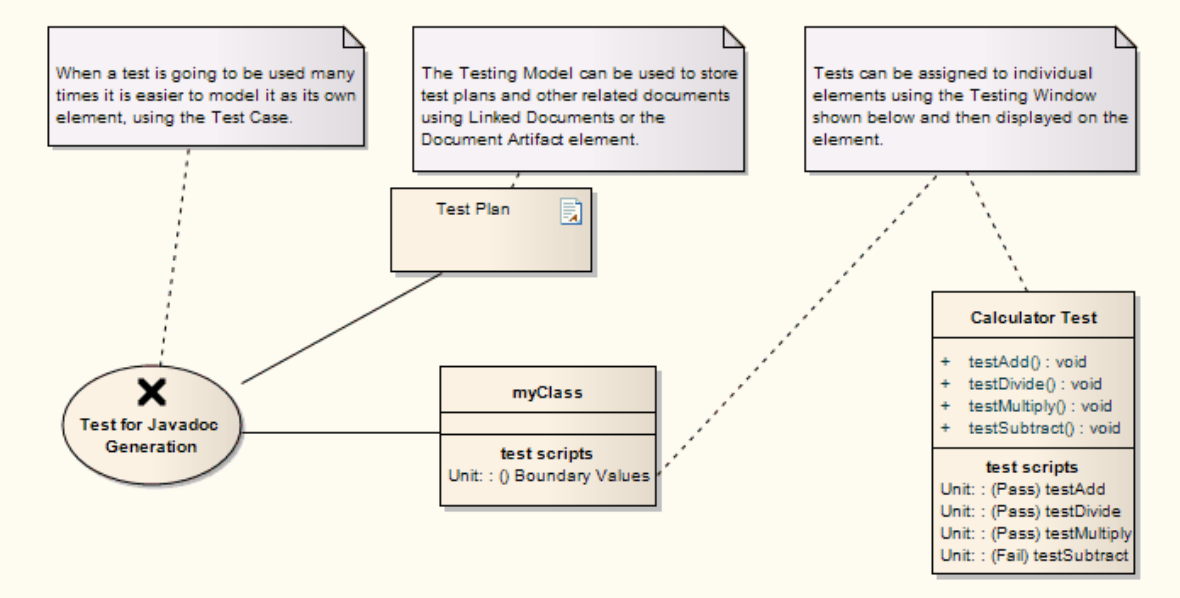
Online Resources

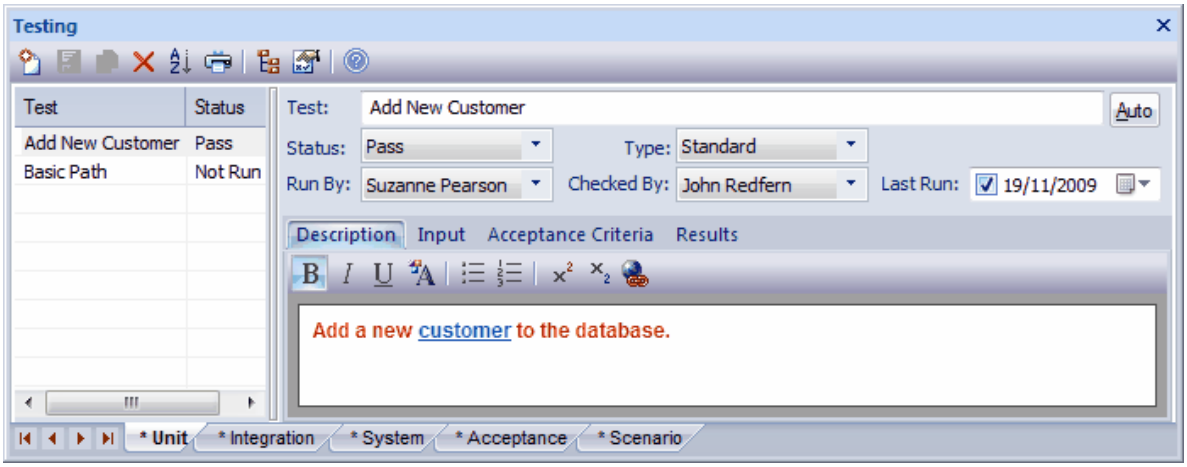
- The Physical Model

© 1998-2010 Sparx Systems Pty Ltd

4.9 Testing Model Template

The *Test Model* describes and maintains a catalogue of tests, test plans and results that are executed against the current model.





Online Resources

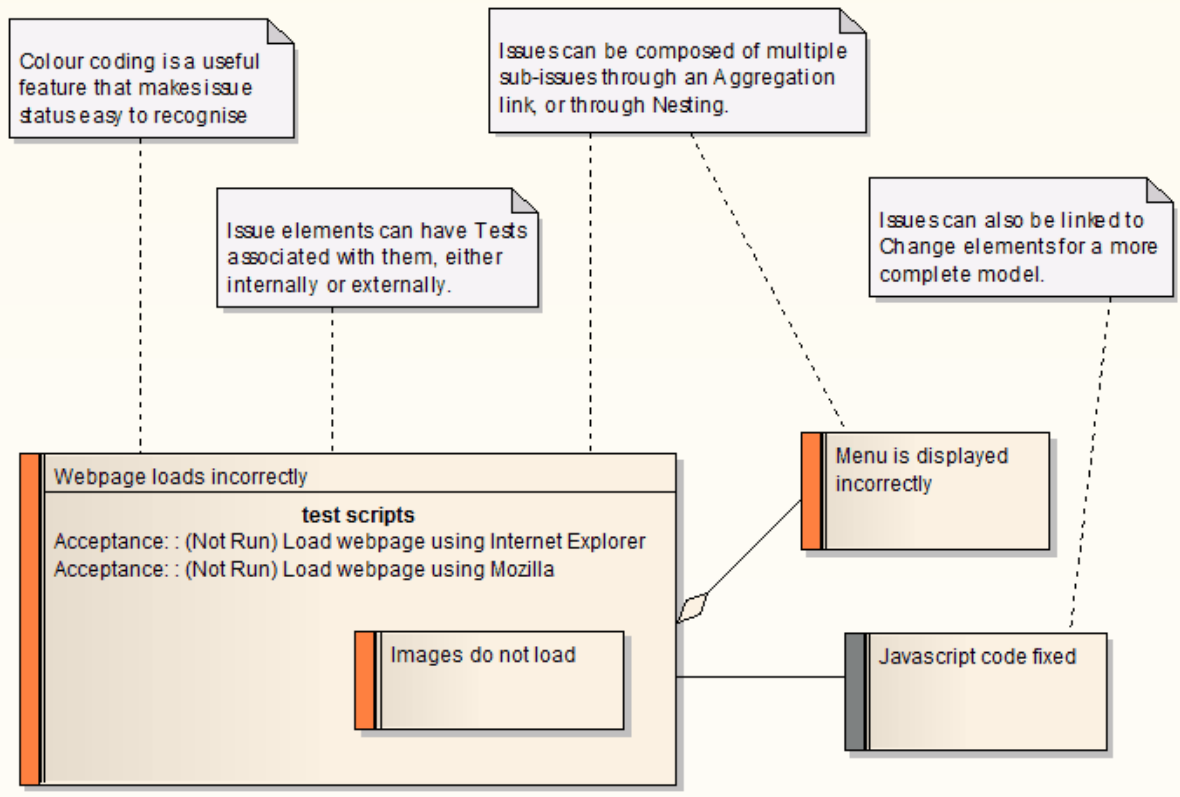
- Testing Support in Enterprise Architect

See Also (in *Project Management with Enterprise Architect*)

- Testing
- Test Case element
- Show Test Scripts

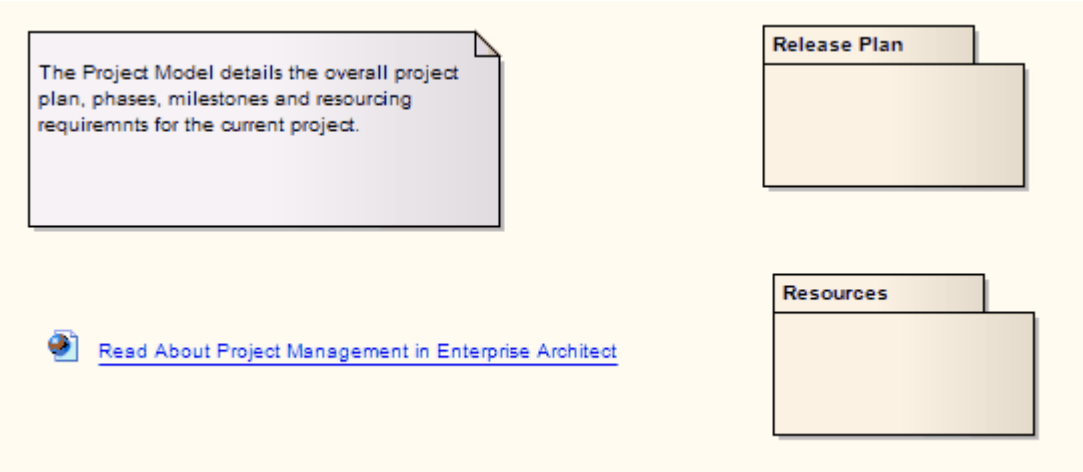
4.10 Maintenance Model Template

The *Maintenance Model* enables visual representation of issues arising during and after development of a software product. The Model can be enhanced with the integration of change elements and testing. (See the *Maintenance* section in *Project Management With Enterprise Architect*.)



4.11 Project Model Template

The *Project Model* details the overall project plan, phases, milestones and resourcing requirements for the current project. Project Managers can use Enterprise Architect to assign resources to elements, measure risk and effort and to estimate project size. Change control and maintenance are also supported.



Online Resources

- Project Manager

© 1998-2010 Sparx Systems Pty Ltd

See Also (in *Project Management with Enterprise Architect*)

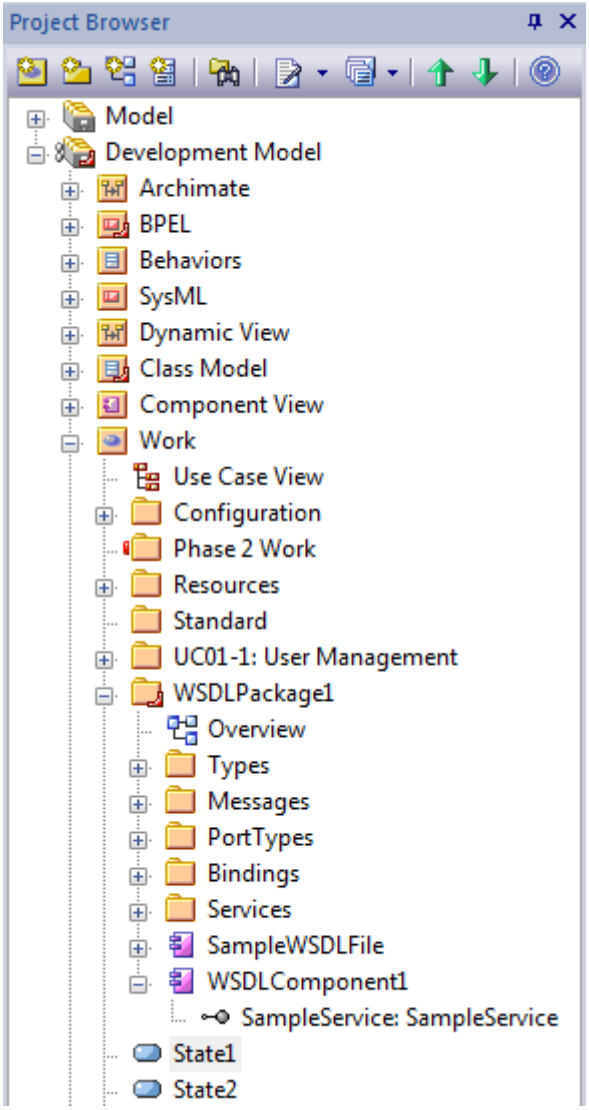
- Project Management

5 The Project Browser

The Project Browser enables you to navigate through the Enterprise Architect project space. It displays packages, diagrams, elements and element properties.

You can drag and drop elements between folders, or drop (paste) elements from the Project Browser directly into the current diagram.

If you right-click on an item in the Project Browser, you can perform additional actions such as adding new packages, creating diagrams, renaming items, creating documentation and other reports, and deleting model elements. You can also edit the name of any item in the Project Browser by selecting the item and pressing **[F2]**.



© 1998-2010 Sparx Systems Pty Ltd

Tip:

The Project Browser is the main view of all model elements in your model; use the mouse to navigate the project.

Note:

You can hide and show the Project Browser by pressing **[Alt]+[0]**.

Views

The Project Browser can be divided into *Views*, each of which contains diagrams, packages and other elements. A default View hierarchy is described below, but you can create different Views to suit your requirements:

View	Description
Use Case View	The functional and early analysis View. Contains Business Process and Use Case models.
Dynamic View	Contains State Charts, Activity and Interaction diagrams. The dynamics of your system.
Logical View	The Class Model and Domain Model View.
Component View	A View for your system components. The high level view of what software is to be built (such as executables, DLLs and components).
Deployment View	The physical model; what hardware is to be deployed and what software is to run on it.
Custom View	A work area for other Views, such as formal requirements, recycle bin, interview notes and non-functional requirements.

See the *Manage Views* topic in *UML Model Management*.

Selective Collapse

When you are working on an expanded project in the Project Browser, you might want to locate the parent element or package of an item, and/or collapse the structure under that parent element or package. To do this, follow the steps below:

1. Position the cursor on an item within the element or package.
2. Press **[←]** on the keyboard to highlight the parent.
3. Press the key again to collapse the structure under that parent element or package.

See Also

- Project Browser Icon Overlays 23

5.1 Order Package Contents

Enterprise Architect enables you to change the order of elements listed in the Project Browser.

Elements by default are first listed in order of type, then in order of set position, then alphabetically. You can use the context menu options to move an element up or down within its type, but not outside its type. This means you can re-sequence Packages or Diagrams or Use Cases, but you cannot mix elements up. However, you can change this default behavior 21 to allow elements to be re-ordered within the package, regardless of type.

Ordering elements is very important when it comes to structuring your model, especially packages. RTF documents honor any custom ordering when printing documentation.

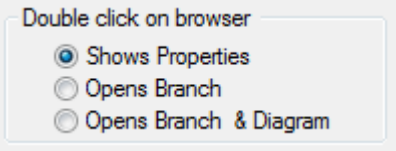
5.2 Set Default Behavior

The General page of the Options dialog provides several options for altering the look and behavior of the Project Browser.

To access the General page, select the **Tools | Options | General** menu option.

Double-click Behavior

In the Double click on browser panel, select the appropriate radio button.

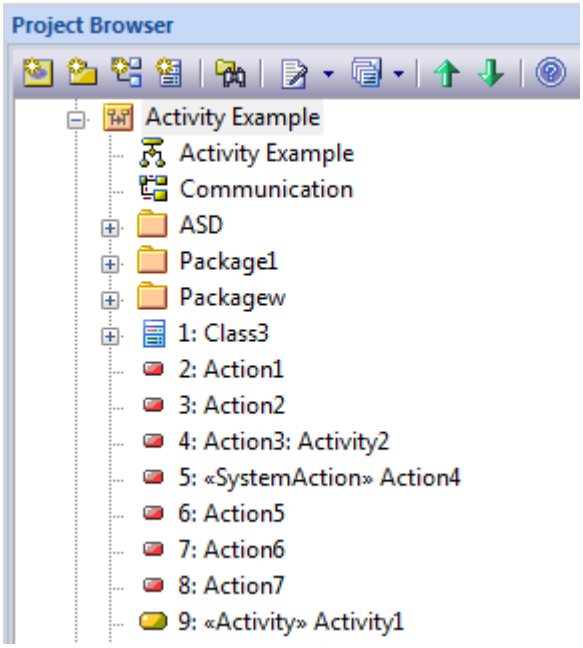


- **Shows Properties** - double-clicking an item in the Project Browser opens a Property dialog (if available) for that element
- **Opens Branch** - double-clicking an item in the Project Browser expands the tree to show the item's children; if there are no children, nothing happens
- **Opens Branch & Diagram** - as above, but also opens the first diagram beneath the item, if applicable.

Enable Free Sorting

The General page of the Options dialog, in the Project Browser panel, select the **Allow Free Sorting** checkbox. This enables you to re-order elements 20 within a package regardless of type, within the Project Browser.

For example, below, the element *Class3* has been moved from its original position with the other Class elements, to a point amongst the Action elements.



You move elements using the icon (moves the element further up the tree) and icon (moves the element further down the tree) in the Project Browser toolbar.

Show Stereotypes

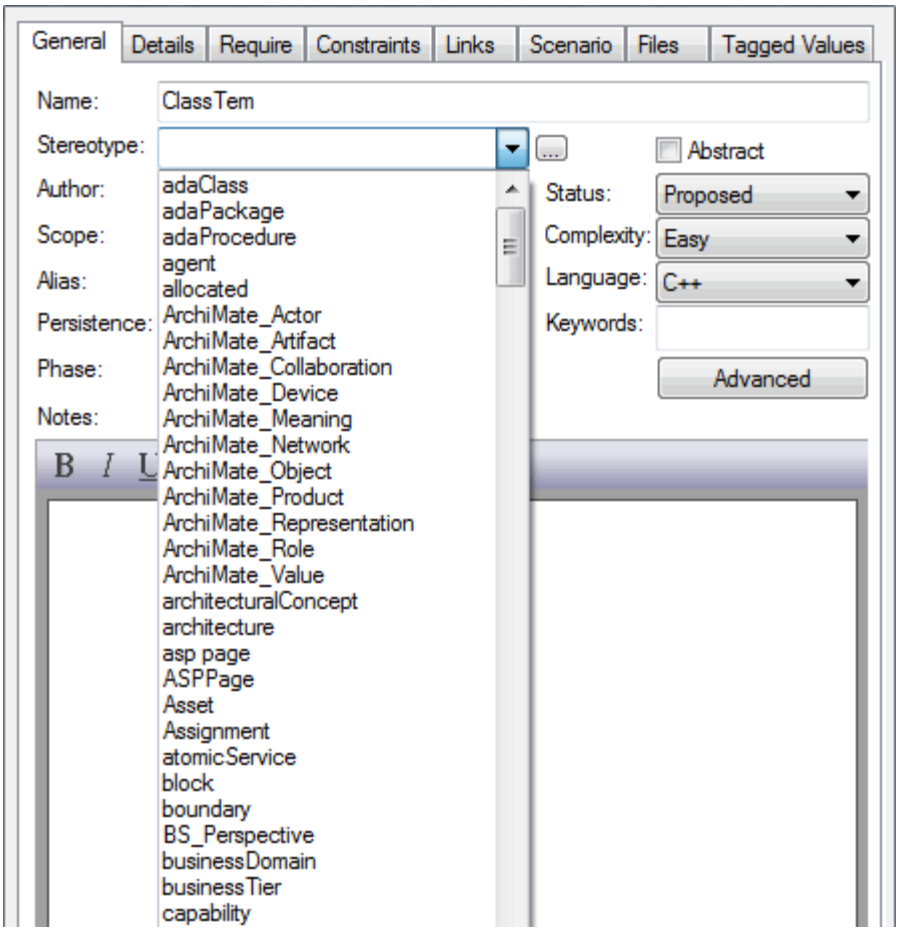
1. On the Options dialog, in the Project Browser panel, select the **Show Stereotypes** checkbox.
2. When prompted, shut down and restart Enterprise Architect to enable this change to take effect.

As shown in the above screen, when a stereotype is defined for an element, the stereotype name then

© 1998-2010 Sparx Systems Pty Ltd

displays in front of the element name (see *Action4* and *Activity1*).

You set the stereotype of an element in its Properties dialog.



5.3 Project Browser Toolbar

At the top of the Project Browser is a toolbar that enables you to perform a range of operations on your project structures.

The functions of each icon in the toolbar are, from left to right:

- Create a new Model Package in the project, from a predefined UML or Technology pattern (see *UML Model Management*)
- Create a new child package under the selected package (see *UML Modeling with Enterprise Architect – UML Modeling Tool*)
- Create a new child diagram under the selected package or element (see *UML Modeling with Enterprise Architect – UML Modeling Tool*)
- Create a new child element under the selected package or element (see *UML Modeling with Enterprise Architect – UML Modeling Tool*)
- Perform a simple search for a text string in the Project Browser
- Provide options to generate an RTF report, HTML report or Diagram Only report on the selected package in the Project Browser (see *Report Creation in UML Models*)
- Provide options to generate source code or DDL, import a source directory, binary module or database schema, generate package contents to synchronize with package code, or reset the source code language, all for the selected package (see *Code Engineering Using UML Models*)
- Move the selected package or element further up the Project Browser, within its parent package
- Move the selected package or element further down the Project Browser, within its parent package

- Open the Enterprise Architect Help on the Project Browser.

5.4 Project Browser Icon Overlays

The Project Browser displays the status of each package in the model by overlaying status icons on the package icon. The following table describes what each overlaid icon means.

Icon Overlay	Indicates that...
	This package is controlled and is represented by an XMI file on disk. Version control either is not being used or is not available. You can edit the package.
	This package is version controlled and checked out to you, therefore you can edit the package.
	This package is version controlled and not checked out to you, therefore you cannot edit the package (unless you check the package out).
	This package is version controlled, but you checked it out whilst not connected to the version control server. You can edit the package but there could be version conflicts when you check the package in again.
	This package is a namespace root. It denotes where the namespace structure starts; packages below this point are generated as namespaces to code.
<MDG Add-In icon>	MDG Add-Ins specify their own icon to denote that this branch of the model belongs to that Add-In. All packages connected to an MDG Add-In correspond to a namespace root, so the namespace root icon is not displayed.

For information on Version Control, see *Version Control Within UML Models Using Enterprise Architect*.

Similarly, the Project Browser indicates attribute and operation scope status with icons. The following table describes what each indicator icon means.

Icon Overlay	Indicates that...
	The attribute or operation is scoped as protected.
	The attribute or operation is scoped as private.

In the Corporate, Business and Software Engineering, Systems Engineering and Ultimate editions, if Project User Security is on, the Project Browser also has element locking indicators (red and blue exclamation marks) that indicate the lock status of individual elements and packages. The availability of these elements for editing depends on whether user locks are required or not. For further information, see the *Locked Element Indicators* topic in *User Security in UML Models*.

5.5 Model (Root Node) Context Menu

The *Root Node* in the Project Browser is the *Model* element. You can have more than one model element.

The first level packages beneath the Model node are sometimes referred to as *Views* as they commonly divide a model into categories such as Use Case Model and Logical Model.

Right-click on the Root Node to display the **Model** context menu.

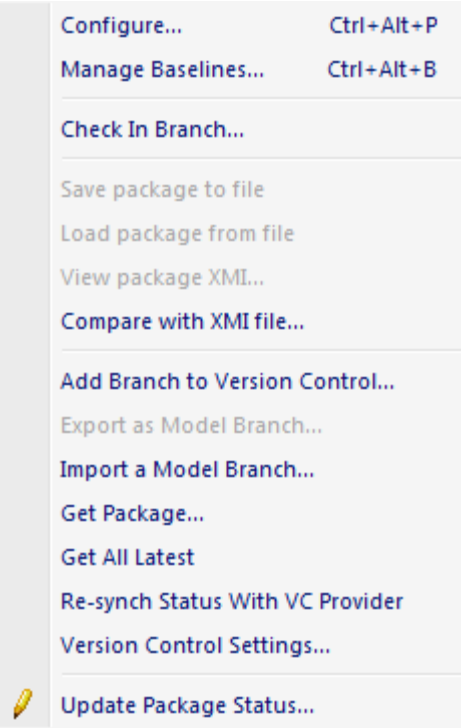
Menu Option & Function Keys	Use to
Add-In	Access the facilities of each Add-In currently enabled for the project.
Scripts	List the scripts enabled for execution directly from the Project Browser. (Does not display if no Project Browser scripts exist.)

© 1998-2010 Sparx Systems Pty Ltd

Menu Option & Function Keys	Use to
Package Control	Display the **Package Control** 25 submenu.
Rename Model	Rename the current model.
New Model (root node)	Create a new model root.
New View	Create a new View (package).
Add a New Model using Wizard	Add further models using the Model Wizard (see *UML Model Management*).
Copy Package to Clipboard	Copy the selected package to the clipboard, to be copied into another package in the same .eap file or a different .eap file (see *UML Modeling With Enterprise Architect - UML Modeling Tool*).
Paste Package from Clipboard	Paste a package from the clipboard into the selected package (see *UML Modeling With Enterprise Architect - UML Modeling Tool*).
Find in Project Browser [Ctrl]+[Shift]+[F]	Find a specified term in the Project Browser.
Expand Branch	Expand all items.
Collapse Branch	Collapse all items.
Import Model from XMI [Ctrl]+[Alt]+[I]	Import a model from an XMI file (see *XMI Import and Export* in *UML Model Management*).
Export Model to XMI [Ctrl]+[Alt]+[E]	Export a model to XMI (see *XMI Import and Export* in *UML Model Management*).
Rich Text Format (RTF) Report [F8]	Produce RTF documentation for the model (see *RTF Documents* in *Report Creation in UML Models*).
HTML Report [Shift]+[F8]	Produce HTML documentation for the model (see *HTML Reports* in *Report Creation in UML Models*).
Diagrams Only Report [Ctrl]+[Shift]+[F8]	Produce a diagrams only report (in RTF) for the model (see *Other Documents* in *Report Creation in UML Models*).
Copy Reference	Copy a reference to the root node to the Enterprise Architect clipboard. Select the appropriate sub-option to copy the: • selected package hierarchy structure (node path) or • node GUID.
Delete Project Root	Delete the Model node and all subordinate Views and packages.
Help	Display the Help topic for the Project Browser.

5.5.1 Package Control Sub-Menu

To display the model node **Package Control** sub-menu, right click on the node in the Project Browser and click on the **Package Control** menu option.



From this menu you can:

- Configure various settings for the package
- Manage Baselines and compare them with the current package (see *Baseline UML Models*)
- Create and work with the package XMI file
- Add model branches (package hierarchies) to version control, and export and import the file that manages changes to branches under version control (see *Version Control Within UML Models Using Enterprise Architect*)
- Retrieve the latest version of the package from the repository; available only for packages that are checked in - **Get All Latest** is not intended for sharing .EAP files and should only be used when people have their own individual databases
- Resynchronize the version control status of packages in the model with the status of the package file in the version control provider software (see *Version Control Within UML Models Using Enterprise Architect*)
- Display the Version Control Options dialog (see *Version Control Within UML Models Using Enterprise Architect*)
- Provide a bulk update on the status of a package, this includes status options such as **Proposed**, **Validate** and **Mandatory**
- Set the namespace root for languages that support namespaces; for more information see the *Namespaces* topic in *Code Engineering Using UML Models*.

5.6 Package Menu

Right-click on a View or Package in the Project Browser. The context menu displays, providing the following options:

Menu Option & Function Keys	Use to
Add-In	Access the facilities of each Add-In currently enabled for the project.
Scripts	List the scripts 152 enabled for execution directly from the Project Browser.

© 1998-2010 Sparx Systems Pty Ltd

Menu Option & Function Keys	Use to
	(Does not display if no Project Browser scripts exist.)
Properties	Add new packages to the model.
Package Control	Submit packages to package control 25 and version control (see *Version Control Within UML Models Using Enterprise Architect*).
Add	Add 27 a new diagram, element or another package to the current package.
View Package As List	Display the Element List 108, showing the elements contained in the selected package.
Turn On Level Numbering **(Turn Off Level Numbering)**	Add a sequence number to each element in the package, based on the element's position in the package hierarchy (see *Requirements Management)*. For nested elements, the numbering indicates level; that is: 3.2 3.2.1 3.2.1.1. This option is only available for packages, and the numbering only applies to the elements in the package, not diagrams. If elements are added, moved or deleted from the package, the numbering automatically adjusts.
Linked Document **[Ctrl]+[Alt]+[D]**	Create or display a linked document for the package or view (see *UML Modeling with Enterprise Architect – UML Modeling Tool*).
Delete Linked Document	Delete the linked document attached to the package. The system prompts you to confirm the deletion.
Paste Diagram	If you have copied a diagram from another package, paste the diagram into the currently-selected package.
Documentation	Produce a variety of reports and documentation 27 in RTF format.
Code Engineering	Perform Code Engineering 28 functions.
Execution Analyzer	Build, run 28 and execution analysis functions.
Import/Export	Import and export 29 using XMI text files.
Transform Current Package **[Ctrl]+[Shift]+[H]**	Perform a model transformation on the selected package (see the *MDA Transformation User Guide*).
Contents	Reorganize the package contents 29 after making changes.
Bookmarks	Bookmark all elements in the selected folder (see *Project Management with Enterprise Architect*).
Find in Project Browser **[Ctrl]+[Shift]+[F]**	Search the Project Browser for specific elements.
Copy Reference	Copy a reference to the package to the Enterprise Architect clipboard. Select the appropriate sub-option to copy the: • selected package hierarchy structure (node path) or • node GUID.
Copy Package to Clipboard	Copy the selected package to the clipboard, to be copied into another package in the same .eap file or a different .eap file (see *UML Modeling With*

Menu Option & Function Keys	Use to
	Enterprise Architect - UML Modeling Tool).
Paste Package from Clipboard	Paste a package from the clipboard into the selected package (see *UML Modeling With Enterprise Architect - UML Modeling Tool*).
Paste Element(s) from Clipboard	Paste elements copied to the clipboard into the selected package (see *UML Modeling With Enterprise Architect - UML Modeling Tool*).
Save Package as UML Profile	Save the selected package as a Profile (see *Extending UML With Enterprise Architect*).
Set View Icon	Change the display icon for the selected package (View level).
Move up	Move the package up in the list.
Move down	Move the package down the list.
Delete <packagename>	Delete the selected package and its contents.
Help	Display the Help topic for the Project Browser.

5.6.1 Add Sub-Menu

In the Project Browser, right-click on a package and select the **Add** context menu option.

Menu Option & Function Keys
Add Diagram
Add Element [Ctrl]+[M]
Add Package [Ctrl]+[W]
Add a New Model using Wizard

For further information on these options, see *UML Modeling with Enterprise Architect – UML Modeling Tool* or (for the Model Wizard) *UML Model Management*).

5.6.2 Documentation Sub-Menu

In the Project Browser, right-click on a package and select the **Documentation** context menu option.

Menu Option & Function Keys
Rich Text Format (RTF) Report [F8]
HTML Report [Shift]+[F8]
Diagrams Only Report [Ctrl]+[Shift]+[F8]
Testing Report
Open in Relationship Matrix
RTF Report Options
Copy RTF Bookmark
Implementation Report
Dependency Report

© 1998-2010 Sparx Systems Pty Ltd

Menu Option & Function Keys
Testing Details
Resource Allocation
Package Metrics

For information on the:

- Testing, resource and metrics options, see *Project Management with Enterprise Architect*
- Dependency Report and Relationship Matrix, see *UML Modeling with Enterprise Architect - UML Modeling Tool*
- Remaining documentation options, see *Report Creation in UML Models*.

5.6.3 Code Engineering Sub-Menu

In the Project Browser, right-click on a package and select the **Code Engineering** context menu option.

Menu Option & Function Keys
Generate Source Code [Ctrl]+[Alt]+[K]
Import Source Directory [Ctrl]+[Shift]+[U]
Import Binary Module
Synchronize Package With Code [Ctrl]+[Alt]+[M]
Generate DDL
Import DB schema from ODBC
Generate XML Schema
Import XML Schema
Generate WSDL
Import WSDL
Reset Options for this Package
Reset DBMS Options
Set as Namespace Root/ Clear Namespace Root

For further information on these options, see *Code Engineering Using UML Models.*

5.6.4 Execution Analyzer Sub-Menu

In the Project Browser, right-click on a package and select the **Execution Analyzer** context menu option.

Menu Option & Function Keys
Package Build Scripts [Shift]+[F12]
Build [Ctrl]+[Shift]+[F12]
Test [Ctrl]+[Alt]+[T]
Run [Ctrl]+[Alt]+[N]

Menu Option & Function Keys
Deploy [Ctrl]+[Shift]+[Alt]+[F12]
Debug [F6]
Step Into [Shift]+[F6]
Step Over [Alt]+[F6]
Step Through
Step Out [Ctrl+[F6]
Stop Debugging [Ctrl]+[Alt]+[F6]
Start Recording
Stop Recording
Create Diagram From History
Create Diagram From Stack

For further information on these options, see *Visual Execution Analyzer in Enterprise Architect*.

5.6.5 Import/Export Sub-Menu

In the Project Browser, right-click on a package and select the **Import/Export** context menu option.

Menu Option & Function Keys
Import package from XMI file [Ctrl]+[Alt]+[I]
Export package to XMI file [Ctrl]+[Alt]+[E]
CSV Import / Export

For further information on these options, see *UML Model Management*.

5.6.6 Contents Sub-Menu

In the Project Browser, right-click on a package and select the **Contents** context menu option.

Menu Option	Use to
Expand Branch	Expand all of the items in the Project Browser.
Collapse Branch	Collapse all of the items in the Project Browser.
Reset Sort Order	Return sorting of package contents to list in alphabetical order.
Reload current package	Refresh the current package in the Project Browser. (See *Version Control Within UML Models Using Enterprise Architect*.)

© 1998-2010 Sparx Systems Pty Ltd

5.7 Element Menu - Project Browser

Right-click on an *element* (such as Class, Object, Activity, State) in the Project Browser to display the element's context menu.

Menu Option & Function Keys	Use to
Add-In	Access the facilities of each Add-In currently enabled for the project.
Scripts	List the scripts 152 enabled for execution directly from the Project Browser. (Does not display if no Project Browser scripts exist.)
Properties	View and modify the element properties.
Custom Properties [Ctrl]+[Shift]+[Enter]	Customize the properties.
Add	Create 31 a child element and diagram (Classifier elements) or a connector to another element.
Rule Composer	For a Rule Task element, invoke the Rule Composer tab in Business Rule Modeling. (See the *Business Modeling* section in *Extending UML With Enterprise Architect*.)
Attributes	Display the Attribute dialog ready to create a new attribute.
Operations	Display the Operations dialog ready to create a new operation.
Create Workbench Instance [Ctrl]+[Shift]+[J]	Create workbench variables from the selected Class. When you select this option, Enterprise Architect prompts you to name the variable. It then displays in the Workbench window. (See the *Object Workbench* topics in *Visual Execution Analyzer in Enterprise Architect*.)
Generate Code [F11]	Generate the source code for this element. See *Generate Source Code* in *Code Engineering Using UML Models.*
Synchronize with Code [F7]	Synchronize the element in the diagram with the source code. See *Reverse Engineer and Synchronizing* in *Code Engineering Using UML Models*.
View Source Code [F12]	View the source code 145 of the element.
Open Source Directory [Ctrl]+[Alt]+[Y]	Open the source directory.
In Diagrams [Ctrl]+[U]	Locate the element in all open diagrams.
Locate in Current Diagram	Select the element in the current visible diagram.
Copy RTF Bookmark	Copy a bookmark in RTF format to the clipboard. See *Report Creation in UML Models.*
Linked Document [Ctrl]+[Alt]+[D]	Create a Linked Document (Corporate, Business and Software Engineering, Systems Engineering and Ultimate editions). See the *Linked Documents* topic in *UML Modeling with Enterprise Architect – UML Modeling Tool*.
Delete Linked Document	Delete the linked document attached to the selected element.
Add Custom Reference [Ctrl]+[J]	Set up cross references between elements in a diagram and the selected element in the Project Browser. See *UML Modeling with Enterprise Architect – UML Modeling Tool.*
Copy Element(s) to Clipboard	Copy the selected element or elements to the clipboard to be pasted into another package in this .eap file or another .eap file (see *UML Modeling With Enterprise Architect - UML Modeling Tool*).

Menu Option & Function Keys	Use to
Copy Reference	Copy a reference to the element to the Enterprise Architect clipboard. Select the appropriate sub-option to copy the: • selected element hierarchy structure (node path) or • node GUID.
Move Up	Move the element up in the list of elements within this package.
Move Down	Move the element down in the list of elements within this package.
Delete '<element Name>'	Delete the element.
Help	Display the Help topic for the Project Browser.

5.7.1 Add Sub Menu

To display the **Add** submenu, either click on the element in the Project Browser and press **[Insert]**, or right-click on the element and select the **Add** context menu option.

The **Add** sub-menu enables you to:

- Add a Behavior element (Activity, Interaction or State Machine) and one of its associated diagrams to the selected Classifier element
- Add a Rule Flow Activity element to a Class, in Business Rule Modeling
- Create a diagram to explain or expand on the selected Classifier element, using the New Diagram dialog, or
- Create a connector to another element.

Elements such as Actors, Classes and Activities can define a large amount of information that can be conveniently represented by or expanded in a child diagram. The **Add** sub-menu for these elements provides all of the options listed above.

Other elements, such as Timing, Exit and History have much more specific functions that do not require expansion. Therefore, the **Add** sub-menu for these elements only provides the option to create a connector to another element, and does not offer options for adding child elements and diagrams.

For further information, see *UML Modeling with Enterprise Architect – UML Modeling Tool* and, for diagram and element descriptions, *The UML Dictionary*.

5.8 Diagram Menu - Project Browser

Right-click on a diagram in the Project Browser to open the **Diagram** context menu. The example below illustrates the functions available from this menu.

Menu Option & Function Keys	Use to
Add-In	Access the facilities of each Add-In currently enabled for the project.
Scripts	List the scripts 152 enabled for execution directly from the Project Browser. (Does not display if no Project Browser scripts exist.)
Properties [F5]	View and modify a diagram's properties.
Open	Open the diagram in the Diagram View.
View Diagram As List	Display the Element List 108, listing the elements in the selected diagram.
Copy Diagram	Copy the diagram for pasting into another location (see *Copy a Diagram* in *UML Modeling with Enterprise Architect – UML Modeling Tool*).
Copy RTF Bookmark	Copy a bookmark in RTF format to the clipboard (see *Report Creation in UML Models*).

© 1998-2010 Sparx Systems Pty Ltd

Menu Option & Function Keys	Use to
Add Custom Reference	Add this diagram as a cross reference to other elements (see *UML Modeling with Enterprise Architect – UML Modeling Tool*).
Print Diagram(s)	Print the currently-selected diagram or diagrams (hold **[Ctrl]** or **[Shift]** while selecting).
Copy Reference	Copy a reference to the diagram node to the Enterprise Architect clipboard. Select the appropriate sub-option to copy the: • selected hierarchy structure (node path) or • node GUID.
Move up	Move the diagram up in the list of diagrams within this package.
Move down	Move the diagram down in the list of diagrams within this package.
Delete '<diagram name>'	Delete the selected diagram.
Delete selected items	Delete several selected diagrams (hold **[Ctrl]** or **[Shift]** while selecting).
Help	Display the Help topic for the Project Browser.

5.9 Operation Menu - Project Browser

To display the **Operation** (or Method) context menu, right-click on an Operation in the Project Browser.

Menu Option & Function Keys	Use to
Add-In	Access the facilities of each Add-In currently enabled for the project.
Scripts	List the scripts 152 enabled for execution directly from the Project Browser. (Does not display if no Project Browser scripts exist.)
Generate Code [F11]	Generate code for the operation.
Synchronize With Code [F7]	Synchronize the operation with the code.
View Source Code [F12]	Open the Source Code Viewer 145 and display the operation.
Operation Properties	Display the Properties dialog for the operation.
Copy Reference	Copy a reference to the operation to the Enterprise Architect clipboard. Select the appropriate sub-option to copy the: • selected hierarchy structure (node path) or • node GUID.
Delete Operation	Delete the operation.
Help	Display the Help topic for the Project Browser.

You can display an equivalent context menu for an attribute by right-clicking on the attribute in the Project Browser.

6 The Main Menu

The Enterprise Architect ***Main*** *menu* provides mouse-driven access to many high-level functions related to the project life cycle, along with administration functions.

In order, the menus available are the:

- File 35 menu
- Edit 40 menu
- View 41 menu
- Project 44 menu
- Diagram 49 menu
- Element 51 menu
- Tools 54 menu
- Add-Ins 67 menu
- Settings 68 menu
- Window 69 menu
- Help 70 menu.

The above topics provide an overview of the functions available from the **Main** menu, and their general purposes.

Additionally, if you right-click on the Toolbar area just under the menu bar, a composite context menu displays providing options to display the toolbars and the more significant windows and views.

© 1998-2010 Sparx Systems Pty Ltd

Project Browser Alt+0
Properties Alt+1
System Alt+2
Testing Alt+3
Maintenance Alt+4
Toolbox Alt+5
Resource Browser Alt+6
Source Code Alt+7
Execution Analyzer Alt+8
Element Browser Alt+9
Scripting
Tasks Pane Ctrl+Shift+9
Notes Ctrl+Shift+1
Traceability Ctrl+Shift+4
Tagged Values Ctrl+Shift+6
Project Management Ctrl+Shift+7
System Output Ctrl+Shift+8
Model Views Ctrl+Shift+5
Relationships Ctrl+Shift+2
Rules & Scenarios Ctrl+Shift+3
Web Browser Ctrl+Alt+W
Pan & Zoom Ctrl+Shift+N
Layout Tools
Add-Ins
Diagram Filters
Default Tools
Project
Code Generation
UML Elements
Diagram
Current Element
Current Connector
Format Tool
Workspace Layouts
Status Bar
Customize...

6.1 The File Menu

The **File** menu provides options to create, open, close and save projects, and also to perform print tasks.

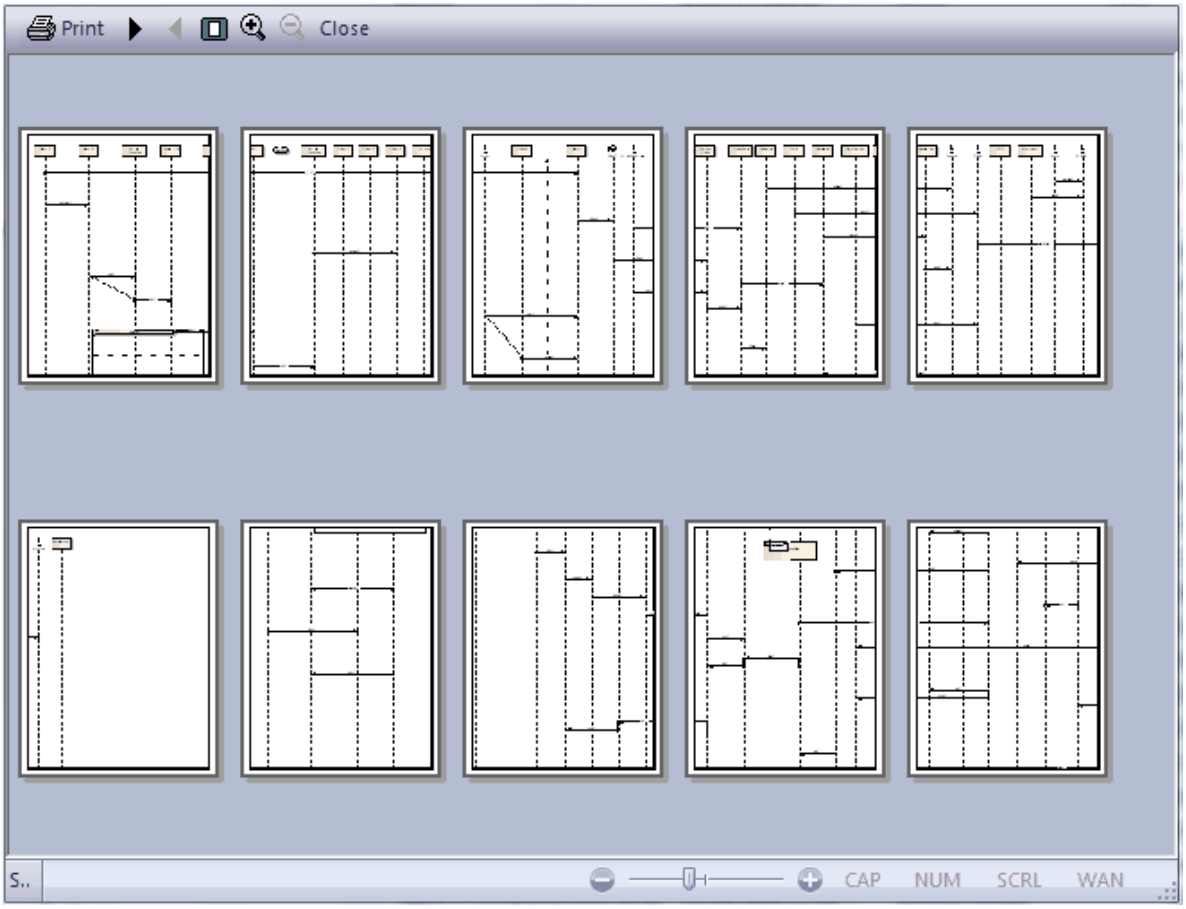
Menu Option & Function Keys	Use to
New Project [Ctrl]+[N]	Create a new Enterprise Architect project (see *UML Model Management)*.
Open Project [Ctrl]+[O]	Open a project (see *UML Model Management)*.
Open Source File [Ctrl]+[Alt]+[O]	Open any type of source file (code, XML, DDL) for editing 147.
Close Project	Close the current project.
Save Project As	Save the current model 36 with a new name, or create a desktop shortcut to the current model. (This option is also active in the 'Lite', read-only edition of Enterprise Architect - see *Getting Started With Enterprise Architect*.)
Reload Current Project [Ctrl]+[Shift]+[F11]	Reload the current project (use in a multi-user environment to refresh the Project Browser). For more information on this option, see *Version Control Within UML Models Using Enterprise Architect*.
Print Setup	Configure your printer's settings.
Page Setup	Configure the page settings for printing.
Print Preview	Preview 35 how the currently displayed diagram prints.
Print [Ctrl]+[P]	Print the currently displayed diagram. Enterprise Architect provides facilities to change the scale of the printed diagram (the number of pages it takes up) and to print or omit page headers and footers on the diagram. (See *UML Modeling with Enterprise Architect – UML Modeling Tool.)*
Recent Files List	Select from a list of the most recently opened projects.
Exit	Exit Enterprise Architect.

6.1.1 Print Preview

When you select the **File | Print Preview** menu option, the display initially shows the first two pages on one screen, with no scroll bar. To toggle between this two-page display and a single-page display, click on the icon in the preview screen toolbar. In either mode, you can use the forward and back arrows to scroll through the pages of the diagram.

To display more than two pages on one screen, up to a maximum of ten pages, click on the **Zoom Out** button in the preview screen toolbar. The screen now includes the vertical scroll bar, which you can also use to scroll through the pages of the diagram.

© 1998-2010 Sparx Systems Pty Ltd



6.1.2 Save Model Copy or Shortcut

Enterprise Architect enables you to create a desktop shortcut (or *Proxy* file) to your model or (for a .EAP file) a direct copy of your model (you cannot create a copy of a DBMS model).

If you are using a database repository other than MS Access 97, 2000 or 2003, you can configure the shortcut to encrypt the password 40 used to set up the connection between Enterprise Architect and the repository. The Enterprise Architect user does not have the real password, thereby preventing them from accessing the repository using other tools such as Query Analyzer or SQLPlus.

Each shortcut is a file containing the connection string for the model. However, the shortcut also defines *views* that Enterprise Architect should open as it opens the model, such as:

- The Model Search 121 with a specific text string and search type

Notes:

- For searches operating on the current tree selection, a diagram in the target package must be opened first.
- If you use a custom SQL search, the SQL must include 128 *ea_guid AS CLASSGUID* and the *object type*.

- A specific diagram
- The Relationship Matrix with a saved profile (See *UML Modeling with Enterprise Architect – UML Modeling Tool*)
- The default Team Review 213.

You can define more than one diagram to open (but not more than one search, Team Review or Relationship Matrix profile). Enterprise Architect opens the appropriate windows in the sequence in which you list the options, displaying the last view in the list. For example, you might create your shortcut to open, in sequence:

- A Development module
- The Model Search for a *simple* search on the term *Issue*
- The module Issues diagram

- The module Changes diagram.

The project would then open with the Enterprise Architect work area showing the two diagram tabs and the Model Search tab, and with the Changes diagram displayed in the Diagram View 107.

Notes:

- These options are not valid for a copy of the model.
- If specified, the shortcut views override any default diagram 49 defined for the model or current user.
- A shortcut does not affect the original Enterprise Architect .exe file or icon, or any other shortcut you might have defined. You can use all of these independently.
- When you use a shortcut to access a project that you have recently opened in Enterprise Architect, the Recent list on the Enterprise Architect Start Page has two entries for the project - one created when you opened the project in Enterprise Architect and one created when you used the desktop shortcut.

To create a copy of your model or a shortcut to your model, you have two options:

- Define each view 37 to open (for example, if you are specifying a working environment in advance, perhaps for other users)
- Capture the current Enterprise Architect work environment 38 to access the model at exactly the same point in exactly the same environment when you resume work.

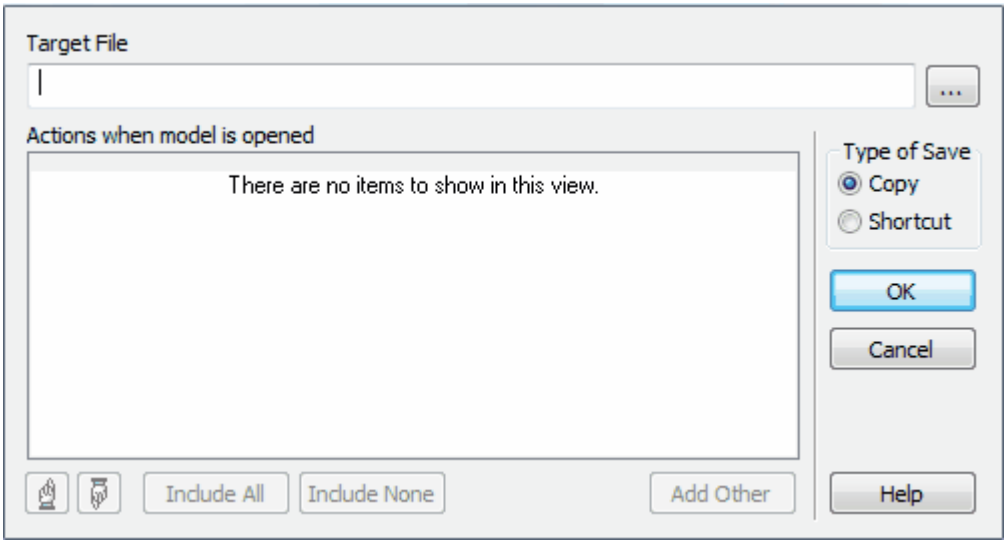
6.1.2.1 Create Copy Or Shortcut

You can specifically define each view that your model shortcut should open; for example, if you are specifying a working environment in advance, perhaps for other users.

You can also capture the current Enterprise Architect work environment 38, which is useful if you want to access the model at exactly the same point in exactly the same environment when you resume work.

To specifically set up your start-up shortcut or take a copy of the model, follow the steps below:

1. On the Start Page, open the required project.
2. Select the **File | Save Project As** menu option. The Save As dialog displays.



3. Click on the **[...]** (Browse) button at the end of the **Target File** field. The Save Project As dialog displays.
4. Browse for the appropriate file location (such as C:\Documents and Settings\<username>\Desktop) and, in the **File name** field, type an appropriate filename. All shortcuts are .EAP files, regardless of whether the model itself is a .EAP file or a DBMS model.
5. Click on the **Save** button to return to the Save As dialog.
6. Click on one of the following:
   - The **Copy** radio button to create a direct copy of the model, and click on the **OK** button to save the copy and end the procedure
   - The **Shortcut** radio button to create a desktop shortcut for the model

© 1998-2010 Sparx Systems Pty Ltd

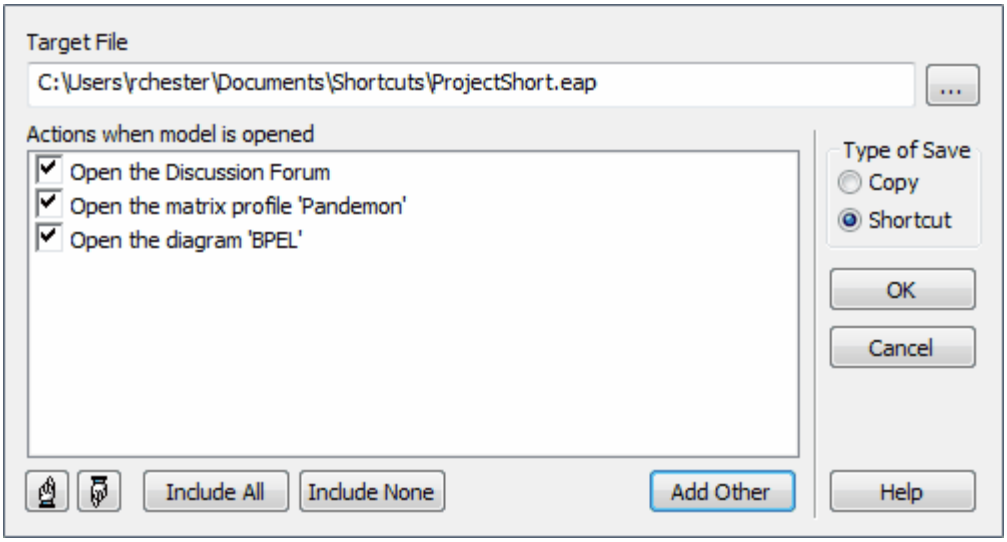
Note:

These radio buttons display only if the model is a .EAP file. If the model is a DBMS file, the target file can only be a shortcut. See the *Encrypt Repository Password* 40 topic.

7. Click on the **Add Other** button and select the required option to define:
   - A diagram to open
   - A Relationship Matrix profile to open
   - The Team Review
   - A Model Search to perform.

   The appropriate browser or dialog displays to define the view to display. Enter the details and click on the **OK** button.
8. Repeat step 7 for as many views as you require. Each entry is automatically selected, with a tick in the checkbox.

   To delete an entry, click on the checkbox to remove the tick. The entry is deleted when you save the shortcut.



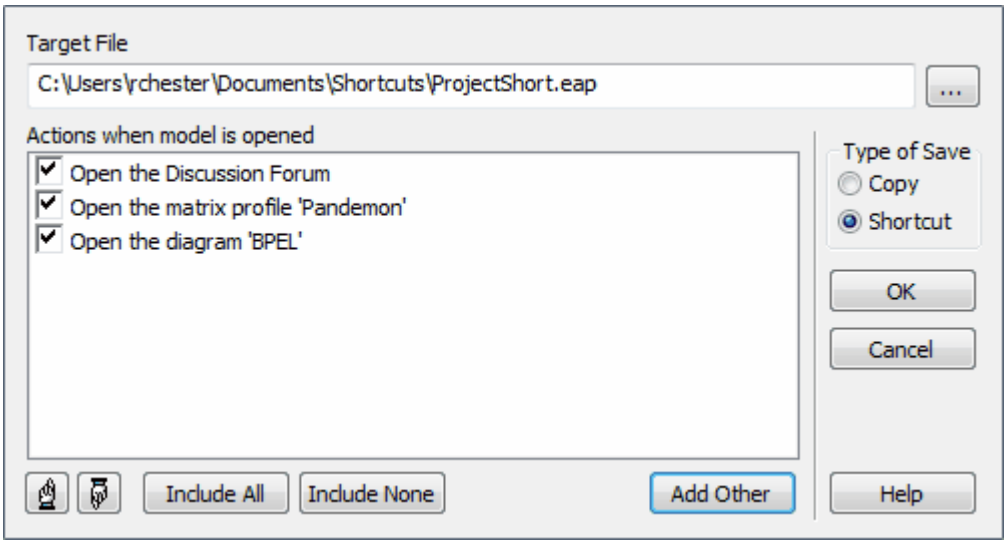
9. To change the sequence and/or make a different view display first in the Diagram View, click on the appropriate entry and click on the 'Up Hand' or 'Down Hand' buttons.
10. Click on the **OK** button to save the shortcut.

When you subsequently open the Save As dialog, it lists the currently-opened views in the order in which they were opened. You can add further views or remove them from the shortcut.

6.1.2.2 Capture Current Work Environment

To capture the current Enterprise Architect work environment 38, so that you can access the model at exactly the same point in exactly the same environment when you resume work, follow the steps below:

1. Open Enterprise Architect (perhaps by using an existing shortcut).
2. On the Start Page, open the required project.
3. Perform the work you need to do.
4. When you decide to capture your work environment in a shortcut, ensure that you have opened all diagrams you require and, if necessary, the Team Review, Model Search (with appropriate search term and type) and/or Relationship Matrix (at the appropriate profile). Ensure that the view you want to resume work on is the last one opened.
5. Select the **File | Save Project As** menu option. The Save As dialog displays, showing a list of actions derived from the views you currently have opened.



6. If you accessed Enterprise Architect via a shortcut, the **Target File** field displays the file location of that shortcut. If you intend to update the shortcut, go to step 10.
7. Otherwise, click on the **[...]** (Browse) button at the end of the **Target File** field. The Save Project As dialog displays.
8. Browse for the appropriate file location (such as C:\Documents and Settings\<username>\Desktop) and, in the **File name** field, type an appropriate filename. All shortcuts are .EAP files, regardless of whether the model itself is a .EAP file or a DBMS model.
9. Click on the **Save** button to return to the Save As dialog.
10. Click on one of the following:
    - The **Copy** radio button to create a direct copy of the model, and click on the **OK** button to save the copy and end the procedure.
    - The **Shortcut** radio button to create a desktop shortcut for the model.

Note:

These radio buttons display only if the model is a .EAP file. If the model is a DBMS file, the target file can only be a shortcut. See the *Encrypt Repository Password* 40 topic.

11. If you decide not to have a view in the shortcut, click on the checkbox to remove the tick. The entry is deleted when you save the shortcut.
12. If you decide to change the sequence and/or make a different view display first in the Diagram View, click on the appropriate entry and click on the 'Up Hand' or 'Down Hand' buttons.
11. Click on the **OK** button to save the shortcut.

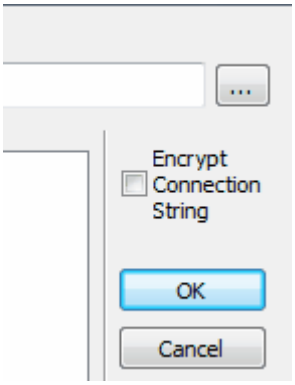
Note:

If you open the Save As dialog when no views are open, the **Actions when model is opened** field is empty. You can save the shortcut like this to totally clear it. Alternatively, if views are listed that you do not want to use again, click on the **Include None** button and save the shortcut.

© 1998-2010 Sparx Systems Pty Ltd

6.1.2.3 Encrypt Repository Password

If your model is developed on a DBMS repository, the Save As dialog has an **Encrypt Connection String** check box instead of the radio buttons, as shown below:



You can create the shortcut actions as described in the *Create Copy or Shortcut* 37 topic and, if necessary, select the checkbox to encrypt the database connection string. You distribute the shortcut file to the database users who are to access the model. The users then have an encrypted string such as:

```
EAConnectString: ora10_db --- DBType=3;ConnectEx=+wkIE;B?e
52+H`"e?r-pb_ZyAI3a]Vsfh8p];Co\d/bnX$5<(;'US"^GxvbbRsK{*%AwL4y1{P<je.%R1
?AY;y'!7pw$X%)_EwLXWpKg7tzLF=T
```

6.2 The Edit Menu

The **Edit** menu provides a range of functions to apply to diagram elements for the currently open diagram.

Menu Option & Function Keys	Use to
Undo [Ctrl]+[Z]	Undo the last action performed; note that some actions cannot be undone. (See *UML Modeling With Enterprise Architect - UML Modeling Tool.)*
Redo [Ctrl]+[Y]	Re-apply the last undone action.
Copy [Ctrl]+[C]	1. Copy the selected elements to the MS Windows clipboard. To paste the selected elements, see the Paste Elements submenu 41. 2. Copy an image of the selected elements to the clipboard. If no elements are selected, the entire diagram is copied. The image can be saved as a bitmap or a metafile; you set the format on the Options 190 dialog.
Add to Project Clipboard [Ctrl]+[Space]	Add the current element to the Enterprise Architect clipboard.
Clear Project Clipboard	Clear any elements from the Enterprise Architect clipboard.
Paste Element(s)	Paste clipboard elements into current diagram. See the **Paste Elements** 41 submenu.
Select All	Select all elements concurrently on the current diagram.
Select By Type	Specify a particular type of element to select.
Clear Selection	Deselect all elements.
Model Search [Ctrl]+[Alt]+[A]	Display the Model Search 123 window, to search for particular phrases or words.
File Search	Display the File Search window, to search for text in code files and scripts.

Menu Option & Function Keys	Use to
	(See *Visual Execution Analyzer In Enterprise Architect.)*
Bookmark Selected [Shift]+[Space]	Bookmark the selected element(s). If the selected element is already bookmarked, this option removes the bookmark. (See *Project Management with Enterprise Architect.)*
Clear All Bookmarks	Clear bookmarks from any bookmarked elements in the current diagram.
Delete Selected Element(s) [Ctrl]+[D]	Delete the selected element from the diagram.

6.2.1 Paste Elements Submenu

To paste what is in the buffer either as a new element or as a hyperlink to the element, select the **Edit | Paste Element(s)** menu option.

Note:

You can paste images from the Enterprise Architect Clipboard or the MS Windows clipboard. The Enterprise Architect clipboard takes precedence, so you must clear that clipboard before you can paste from the MS Windows clipboard.

Menu Option & Function Keys	Use to
as Link [Shift]+[Insert]	Paste the element in the buffer as a link (that is, a reference) to the element. (See *UML Modeling with Enterprise Architect – UML Modeling Tool*.) If there are images in the MS Windows clipboard and none in the Enterprise Architect clipboard, you can: • Paste an image from the MS Windows clipboard into a new element as the appearance of the new element or • Paste an image from the MS Windows clipboard into the diagram as a new boundary's appearance.
as New [Ctrl]+[Shift]+[V]	Paste the element in the buffer as a completely new element.
Paste Image From Clipboard [Ctrl]+[Shift]+[Insert]	Paste the element in the Enterprise Architect Clipboard into the same diagram or a different diagram, as a metafile (that is, a definition of the element) as many times as is necessary. If you paste the element into a different diagram, the classifier identifies the source diagram for the element.

6.3 The View Menu

From the **View** menu you can set local user preferences, including which toolbars or windows are hidden or visible.

Menu Option & Function Keys	Use to
Project Browser [Alt]+[0]	Show or hide the Project Browser 19.
Model Views [Ctrl]+[Shift]+[5]	Show or hide the Model Views 113 window.
Team Review [Ctrl]+[Alt]+[U]	Open the Team Review 213 window.
Relationship Matrix	Open the Relationship Matrix to cross reference elements to each other by connector type. (See *UML Modeling with Enterprise Architect – UML*

© 1998-2010 Sparx Systems Pty Ltd

Menu Option & Function Keys	Use to
	Modeling Tool.)
Element List [Ctrl]+[Alt]+[R]	Display the current diagram or package in a context-sensitive, editable table, the Element List 108.
Other Project Tools	Display a submenu 42 containing options for the Resources, Tasks Pane, System, Audit View and internal Web Browser.
Diagram Toolbox [Alt]+[5]	Show or hide the Enterprise Architect UML Toolbox 71.
Diagram Filters	Display the Diagram Filters 170 window, for selecting the elements to show or hide on a diagram.
Pan and Zoom [Ctrl]+[Shift]+[N]	Display the Pan & Zoom 170 window for panning across a diagram to display sections at greater magnification.
Layout Tools	Display the Layout Tools window, for reformatting your diagram in one of a range of layouts (see *UML Modeling with Enterprise Architect - UML Modeling Tool*).
Element Browser [Alt]+[9]	Explore the components of the selected element, in the Element Browser 154 window.
Traceability [Ctrl]+[Shift]+[4]	Show or hide the Traceability 160 window, for tracing the relationships of an element through the model.
Element Properties [Alt]+[1]	Show or hide the Properties 140 *window* for the selected element.
Scenarios & Requirements [Ctrl]+[Shift]+[3]	Display the Scenarios, internal Constraints and Requirements 158 for the selected element, as tabs of the main work space.
Testing [Alt]+[3]	Show or hide the Testing window. (See *Project Management with Enterprise Architect.)*
Other Element Tools	Display a submenu 42 containing options for the Project Management, Maintenance, Source Code and Relationships tools.
Execution Analyser	Display the Debug Workbench options. See View Submenus 43.
Scripting	Show or hide the Scripter 148 window.
System Output [Ctrl]+[Shift]+[8]	Show or hide the Output 168 window.
Add-In Windows	Display a window, or list of windows, provided by any Add-Ins you have installed and enabled. If no windows are provided, displays an empty, docked Add-Ins window.
Notes [Ctrl]+[Shift]+[1]	Show or hide the Notes 160 window.
Tagged Values [Ctrl]+[Shift]+[6]	Show or hide the Tagged Values 162 window.
Toolbars	Show or hide individual toolbars. See View Submenus 43.
Visual Style	See View Submenus 43.
Workspace Layouts	Displays the Workspace Layout dialog for changing the content and layout 101 of the Enterprise Architect workspace.

6.3.1 View Submenus

The Other Project Tools Sub-Menu

Select the windows to be visible and deselect those to be hidden. You can select from:

- Resources **[Alt]+[6]** - Show or hide the Resources 143 window.
- Tasks Pane **[Ctrl]+[Shift]+[9]** - Show or hide the Tasks Pane 168.
- System **[Alt]+[2]** - Show or hide the System 142 window.
- Audit View - Display the Audit View, which shows the information that has been recorded by auditing. (See *Auditing UML Models*.)
- Internal Web Browser 135 **[Ctrl]+[Alt]+[W]** - Open the web browser page at the site you have specified on the Options 190 dialog, in the **Web Home** field.

The Other Element Tools Submenu

Select the windows to be visible and deselect those to be hidden. You can select from:

- Project Management **[Ctrl]+[Shift]+[7] -** Show or hide the Project Management 167 window.
- Maintenance **[Alt]+[4] -** Show or hide the Maintenance window. (See *Project Management with Enterprise Architect.)*
- Source Code **[Alt]+[7] -** Show or hide the Source Code Viewer 145 window.
- Relationships **[Ctrl]+[Shift]+[2]** - List the element's connectors on the Relationships 157 window.

The Execution Analyzer Menu

Select the aspect of the debugging process you want to explore, from the following options:

- Debugger **[Alt]+[8]** - Show or hide the Debug window, which also enables you to display some or all of the other debugger windows listed below, at the same time (see *Visual Execution Analyzer in Enterprise Architect*).
- Profiler - displays the Profiler window.
- Call Stack
- Record & Analyze
- Locals
- Watches
- Modules
- Debug Output
- Workbench - enables you to create your own workbench variables and invoke methods on them
- Breakpoints & Markers
- Memory Viewer

The Toolbars Sub-Menu

Select the toolbars to be visible and deselect those to be hidden. You can select from:

- Default Tools 95
- Project 95
- Code Generation 96
- UML Elements 97
- Diagram 98
- Current Element 98
- Current Connector 99
- Format Tool 99
- Workspace Layouts 100
- Status Bar 103.

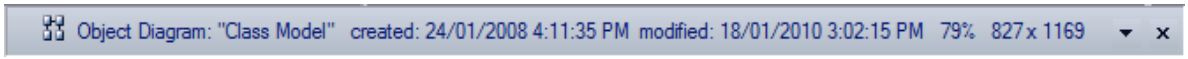
The Visual Style Sub-Menu

Presents options to:

- Select different visual styles 207 or *themes* for the Enterprise Architect user interface
- Animate windows that have been automatically hidden 138
- Toggle the down-arrow on the end of each toolbar that enables you to customize the toolbar buttons, as shown below:

© 1998-2010 Sparx Systems Pty Ltd

- Hide or redisplay the diagram caption bar 107 at the top or bottom of a diagram. The caption bar is illustrated below:



6.4 The Project Menu

Use the **Project** menu for tasks related to the management of your project, such as recording issues, setting estimation parameters and compiling a glossary.

Menu Option & Function Keys	Use to
Add Package [Ctrl]+[W]	Create a new package. (See *UML Modeling with Enterprise Architect – UML Modeling Tool*.)
Add Diagram [Ctrl]+[Insert]	Create a new diagram in the current package. (See *UML Modeling with Enterprise Architect – UML Modeling Tool*.)
Add Element [Ctrl]+[M]	Create a new element on the current diagram. (See *UML Modeling with Enterprise Architect – UML Modeling Tool*.)
Documentation	See Documentation Submenu 44.
Source Code Engineering	See Source Code Engineering Submenu 45.
Execution Analyzer	See Execution Analyzer Submenu 46.
Database Engineering	See Database Engineering Submenu 47.
Transformations	See Model Transformations Submenu 47.
Model Validation	See Model Validation Submenu 47.
Web Services	See Web Services Submenu 47.
XML Schema	See XML Schema Submenu 48.
Security	See Security Submenu 48.
Version Control	See Version Control Submenu 48.
Import/Export	See Import/Export Submenu 49.
Manage Baselines [Ctrl] +[Alt]+[B]	Store a model branch as a snapshot or baseline. Available in the Corporate, Business and Software Engineering, Systems Engineering and Ultimate editions. (See *Baseline UML Models*.)
Use Case Metrics	Set Use Case Metrics to assist in estimating project size. (See *Project Management with Enterprise Architect*.)
Project Statistics	View some basic project statistics.

6.4.1 Documentation Submenu

To generate various types of documentation, select the **Project | Documentation** menu option.

Menu Option & Function Keys	Use to
Rich Text Format Report [F8]	Generate a report for the currently selected package in Rich Text Format. (See *Report Creation in UML Models*.)

Menu Option & Function Keys	Use to
HTML Report [Shift]+[F8]	Generate a report for the currently selected package in HTML format. (See *Report Creation in UML Models*.)
Diagrams Only Report [Ctrl]+[Shift]+[F8]	Generate an RTF report containing only diagrams. (See *Report Creation in UML Models*.)
Testing Report	Generate an RTF report of the model's existing tests. (See *Project Management with Enterprise Architect*.)
Issues	Generate an RTF report of the model's issues. (See *Project Management with Enterprise Architect*.)
Glossary	Generate an RTF report of the model's Glossary. (See *Project Management with Enterprise Architect*.)
Implementation Details	Generate an implementation report for the currently-selected package. (See *Report Creation in UML Models*.)
Dependency Details	Generate a dependency report for the currently-selected package. (See *Report Creation in UML Models*.)
Testing Details	Generate test details for the currently-selected package. (See *Project Management with Enterprise Architect*.)
Resource and Tasking Details	View resource details. (See *Project Management with Enterprise Architect*.)

6.4.2 Source Code Engineering Submenu

To forward and reverse engineer code using the language of your choice select the **Project | Source Code Engineering** menu option (Professional, Corporate, Business and Software Engineering, Systems Engineering and Ultimate editions).

For further information on the facilities available through this menu, see *Code Engineering Using UML Models.*

Menu Option & Function Keys	Use to
Generate Package Source Code [Ctrl]+[Alt]+[K]	Generate source code for the currently selected package.
Synchronize Package Contents [Ctrl]+[Alt]+[M]	Synchronize selected package with the source code.
Import Source Directory [Ctrl]+[Shift]+[U]	Import and reverse engineer an entire directory structure.
Import Binary Module	Import a binary module.
Import ActionScript Files	Import code written in ActionScript with the file extension .AS.
Import C Files	Import code written in ANSI C with the file extension .C or .H.
Import C# Files	Import code written in the C# programming language with the file extension .CS.
Import C++ Files	Import code written in the C++ programming language with the file extension .H, .HPP or .HH.
Import Delphi Files	Import code written in the Delphi programming language with the file extension .PAS.

© 1998-2010 Sparx Systems Pty Ltd

Menu Option & Function Keys	Use to
Import Java Files	Import code written in the Java programming language with the file extension .JAVA.
Import PHP Files	Import code written in PHP with the file extension .PHP, .PHP4, .INC.
Import Python Files	Import code written in Python with the file extension .PY.
Import Visual Basic Files	Import code written in the Visual Basic programming language with the file extension .FRM, .CLS, .BAS or .CTL.
Import VB.Net Files	Import code written in the VB.Net programming language with the file extension .VB.

6.4.3 Execution Analyzer Submenu

To link your project with a compiler for building, running and debugging, select the **Project | Execution Analyzer** menu option.

For further information on the facilities available through these menu options, see *Visual Execution Analyser in Enterprise Architect*.

Menu Option & Function Keys	Use to
Package Build Scripts [Shift]+[F12]	Create and configure Package Build compiler scripts.
Build [Ctrl]+[Shift] +[F12]	Build the application for your current script. Execute the **Build** command in the Build Scripts dialog.
Test [Ctrl]+[Alt]+[T]	Execute the **Test** command you configured in the Build Scripts dialog.
Run [Ctrl]+[Alt]+[N]	Execute the **Run** command you configured in the Build Scripts dialog.
Deploy [Ctrl]+[Shift] +[Alt]+[F12]	Execute the **Deploy** command you configured in the Build Scripts dialog.
Debug Run [F6]	Run the application and Debug the **Run** command in the Build Scripts dialog.
Debug Pause	Pause and restart execution of a debug run.
Step Into [Shift]+[F6]	Step into the current function.
Step Over [Alt]+[F6]	Step over the current function.
Step Out [Ctrl]+[F6]	Step out of the current function.
Debug Stop [Ctrl] +[Alt]+[F6]	Stop the current debug session.
Start Debug Recording	Start recording your trace for a debug session.
Stop Debug Recording	Stop a debug recording.
Auto Record Thread	Autorecord your debug session. The Stack Trace History, Stack tab and Source Code Editor dynamically update to reflect the current execution sequence for the thread; Stack Trace Recording ends when the thread ends or when you click on the **Stop** button.
Show/Hide Execution	Display the executing code when a thread has encountered a breakpoint. The option presents the source code file in an editor window with the current line of code highlighted for the thread that has the current focus.

Menu Option & Function Keys	Use to
Create Sequence Diagram	Create a Sequence diagram from the Stack Trace History.

6.4.4 Database Engineering Submenu

Select the **Project | Database Engineering** menu option.

For further information on the facilities available through these menu options, see *Code Engineering Using UML Models.*

Menu Option	Use to
Import DB Schema from ODBC	Import a database schema from an ODBC data source.
Generate Package DDL	Generate a Package DDL script to create the tables in the currently selected package.

6.4.5 Transformations Submenu

Select the **Project | Transformations** menu option.

For further information on the facilities available through these menu options, see the *MDA Transformations User Guide*.

Menu Option & Function Keys	Use to
Transform Selected Elements [Ctrl]+[H]	Perform an MDA-style transformation to the currently selected elements.
Transform Current Package [Ctrl]+[Shift]+[H]	Perform an MDA-style transformation to the currently selected package.

6.4.6 Model Validation Submenu

Select the **Project | Model Validation** menu option.

For further information on the facilities available through these menu options, see *UML Model Management*.

Menu Option & Function Keys	Use to
Validate Selected [Ctrl]+[Alt]+[V]	Validate a selected element, diagram or package from the Project Browser .
Cancel Validation	Cancel the validation process.
Configure	Configure the Validation rules from the list of available rules.

6.4.7 Web Services Submenu

Select the **Project | Web Services** menu option.

For further information on the facilities available through these menu options, see *Code Engineering Using UML Models.*

Menu Option	Use to
Import WSDL	Reverse engineer a Web Service Definition Language (WSDL) file as a UML Class

© 1998-2010 Sparx Systems Pty Ltd

Menu Option	Use to
	model.
Generate WSDL	Forward engineer a UML Class model to a WSDL file.

6.4.8 XML Schema Submenu

Select the **Project | XML Schema** menu option.

For further information on the facilities available through these menu options, see *Code Engineering Using UML Models.*

Menu Option	Use to
Import XML Schema	Reverse engineer a W3C XML Schema (XSD) file as a UML Class model.
Generate XML Schema	Forward engineer a UML Class model to a W3C XML Schema (XSD) file.

6.4.9 Security Submenu

To configure security settings for your project, select the **Project | Security** menu option.

For further information on the facilities available through these menu options, see *User Security in UML Models*.

Notes:

- This feature is available in the Corporate, Business and Software Engineering, Systems Engineering and Ultimate editions.

Menu Option & Function Keys	Use to
Manage Users	Add, modify and remove users, including maintaining permissions.
Manage Groups	Add, modify and remove security groups, including maintaining permissions.
Manage Locks	View and manage element locks.
Change Password	Change current security password.
Login as Another User	Switch the login to a different user ID.
My Locks [Ctrl]+[Shift]+[L]	View and delete your own locks.
Enable Security	Enable or disable user security to limit access to update functions in the model.
Require User Lock to Edit	Toggle the security policy in force.
Encrypt Password	Add encryption to your password.

6.4.10 Version Control Submenu

Select the **Project | Version Control** menu option.

For further information on the facilities available through these menu options, see *Version Control Within UML Models Using Enterprise Architect*.

Menu Option & Function Keys	Use to
Configure Current Package [Ctrl]+[Alt]+[P]	Specify whether this package (and its children) is controlled and, if so, which file it is controlled through.
Version Control Settings	Specify the options required to connect to a Source Code Control (SCC) provider.
Validate Configurations	Validate the version control configuration of each package in the model.
Work Offline	Toggle between 'offline' version control and online version control.

6.4.11 Import/Export Submenu

To perform import and export to XMI and CSV, select the **Project | Import/Export** menu options.

For further information on the facilities available through these menu options, see *UML Model Management*.

Menu Option & Function Keys	Use to
Import Package from XMI [Ctrl]+[Alt]+[I]	Import a package from an XMI (XML based) file.
Export Package to XMI [Ctrl]+[Alt]+[E]	Export the currently selected package to an XMI (XML based) file.
CSV Import/Export [Ctrl]+[Alt]+[C]	Import or Export information on Enterprise Architect elements in CSV format.
CSV Import/Export Specifications	Set up CSV import Export Specifications.
Batch XMI Export	Export a group of controlled packages in one action.
Batch XMI Import	Run a batch import of multiple packages.

6.5 The Diagram Menu

The **Diagram** menu enables you to save diagram images to file as well as configure diagram properties and options.

For further information on the facilities available through these menu options, see *UML Modeling with Enterprise Architect – UML Modeling Tool*.

Menu Option & Function Keys	Use to
Properties [F5]	View and edit the <type> Diagram: <name> dialog for the current diagram.
Layout Diagram	Automatically layout the current diagram (not available for Behavioral diagrams).
Lock Diagram	Prevent the diagram from being edited, or release the locked diagram for editing. **Note:** This does not apply in the Corporate, Business and Software Engineering, Systems Engineering and Ultimate editions if security is enabled. In that case, see *Lock Model Elements* in *User Security in UML Models*.
Save [Ctrl]+[S]	Save the current position of all diagram elements.

© 1998-2010 Sparx Systems Pty Ltd

Menu Option & Function Keys	Use to
Save Image [Ctrl]+[T]	Save the diagram as a bitmap (.BMP), GIF (.GIF) or Windows Metafile (.WMF).
Copy Image [Ctrl]+[B]	Copy an image of the current diagram to the clipboard. The image can be in metafile or bitmap format; you set the format on the Options 190 dialog.
Save UML Pattern	Save the current diagram as a UML pattern.
Swimlanes and Matrix	Add, modify and delete swimlanes or the swimlanes matrix for the current diagram.
Visible Relations [Ctrl]+[Shift]+[I]	Hide or show individual connectors for the current diagram.
Property Note	Display the properties note for the current diagram on screen.
Sequence Messages	Change the order of the communication messages in the current diagram. See the *UML Dictionary*.
Find in Project Browser [Shift]+[Alt]+[G]	Locate the current diagram in the Project Browser window.
Make User Default	In the Corporate, Business and Software Engineering, Systems Engineering and Ultimate editions of Enterprise Architect, if security is enabled you make the current diagram the default diagram opened when the current user re-opens this model. The User Default diagram overrides the Model Default diagram (see **Make Model Default**, below). To cancel a User Default diagram, either: • Create a dummy diagram, set it as the User Default and delete it, or • Delete the original diagram (if it is no longer relevant). This still blocks the Model Default diagram, whilst Security is enabled. To re-establish the Model Default diagram, set it as the User Default.
Make Model Default	Make the current diagram the default diagram opened when the current model is re-opened. To cancel a Model Default diagram, either: • Create a dummy diagram, set it as the Model Default and delete it, or • Delete the original diagram (if it is no longer relevant).
Change Type	Change the type of the current diagram.
Repeat Last Element [Shift]+[F3]	Create an instance of the same type as the last element created.
Repeat Last Connector [F3]	Create an instance of the same type as the last connector created.
Show Grid	Show or hide the diagram grid
Snap To Grid	Position elements on the diagram grid. There are two options: • Standard Grid - constrains elements to the grid when they are added to diagrams • Smart Placement - places elements even distances away from other elements and spaces elements evenly. If neither of these options are enabled, the elements can be placed freely on the diagram.
Zoom	Change the zoom factor on the current diagram.

6.6 The Element Menu

You can configure and access element details using the **Element** menu. This enables you to control element layout, generate documentation and manage project resources.

For further information on the facilities available through these menu options, see *UML Modeling with Enterprise Architect – UML Modeling Tool*.

Menu Option & Function Keys	Use to
Properties [Alt]+[Enter]	View the Properties dialog of the selected element.
Add Tagged Value [Ctrl] +[Shift]+[T]	Add a Tagged Value to the currently selected element.
Linked Document [Ctrl]+[Alt] +[D]	Link the element to a rich text document.
Attributes [F9]	View and edit the attributes for the selected element.
Operations [F10]	View and edit the operations (methods) for the selected element.
Inline Features	See the element Inline Features Submenu 52.
Feature Visibility [Ctrl]+[Shift] +[Y]	Select which features and characteristics of the selected element are visible on a diagram.
Advanced	See the element Advanced Submenu 52.
Rich Text Format (RTF) Report	Generate a report for the currently selected package in rich text format. (See *Report Creation in UML Models*.)
Source Code Engineering	See the element Source Code Engineering Submenu 53.
Open Source in External Editor [F12]	Open the source code of the selected Class in the default external editor for that language. (Source code must have been generated, and the selected element must be a Class - see *Code Engineering Using UML Models*.)
Find in Project Browser [Alt] +[G]	Find the currently selected element in the Project Browser window. (If no element is selected, finds the current diagram in the Project Browser window.)
Find in Diagrams [Ctrl]+[U]	Display all occurrences of the currently selected element.
Custom References [Ctrl]+[J]	Show model element cross references.
Appearance	See the element Appearance Submenu 53.
Alignment	See the element Position Submenus 53.
Make Same	
Z Order	
Size	
Move	
Space Evenly	

© 1998-2010 Sparx Systems Pty Ltd

6.6.1 Inline Features Submenu

The **Inline Features** sub-menu provides various options to directly edit Class diagram model elements from the Class diagram. Select the **Element | Inline Features** menu option to access this submenu.

Menu Option & Function Keys	Use to
Edit Selected [F2]	Attach a note or attach a constraint to the element.
View Properties	Open the dialog containing details of the selected element feature, or the element if no feature is selected.
Insert New After Selected	Insert a new item in the element.
Create Linked Note	Add a Note element linked to the selected item, reflecting the content of that item.
Add Attribute [Ctrl]+[Shift] +[F9]	Add an attribute to the element. (See *UML Modeling with Enterprise Architect – UML Modeling Tool*.)
Add Operation [Ctrl]+[Shift] +[F10]	Add an operation to the element. (See *UML Modeling with Enterprise Architect – UML Modeling Tool*.)
Add Other [Ctrl]+[F11]	Insert a feature on the specific element item, such as Maintenance features and Testing features.
Delete Selected from Model [Ctrl]+[Shift]+[Delete]	Delete the selected item from the model.

Other options that are available while in editing elements mode in a diagram (when an attribute or operation is highlighted) include:

Key	Use to
[Enter]	Accept current changes.
[Ctrl]+[Enter]	Accept current changes and open a new slot to add a new item.
[Esc]	Abort edit, without save.
[Shift]+[F10]	Display the context menu for in-place editing.
[Ctrl]+[L]	Invoke the Set Element Classifier dialog.

6.6.2 Advanced Submenu

The **Advanced** sub-menu provides various options to choose from to customize the appearance of model elements. Select the **Element | Advanced** menu option to display this submenu.

For further information on the facilities available through these menu options, see *UML Modeling with Enterprise Architect – UML Modeling Tool*.

Menu Option & Function Keys	Use to
Overrides & Implementations [Ctrl]+[Shift]+[O]	Automatically override methods from parent Classes and from realized interfaces.
Set Parents and Interfaces [Ctrl] +[I]	Manually set the element's parents or an interface that it realizes.
Embedded Elements [Ctrl] +[Shift]+[B]	Attach elements to the currently selected element.
Change Type	Change the element type of the selected element.

6.6.3 Source Code Engineering Submenu

To forward and reverse engineer code using the language of your choice, select the **Element | Source Code Engineering** menu option.

Menu Option & Function Keys	Use to
Generate Current Element [F11]	Generate source code for the currently selected element. (See *Code Engineering Using UML Models.*)
Synchronize Current Element [F7]	Synchronize the selected Class with the source code.
Batch Generate Selected Element(s) [Shift]+[F11]	Batch generate source code for the currently selected element(s).
Batch Synchronize Selected Element(s) [Ctrl]+[R]	Batch synchronize the currently selected element(s) with source code.
Open Source Directory [Ctrl]+[Alt]+[Y]	Open the directory containing the source for this element.

6.6.4 Appearance Submenu

The **Appearance** sub-menu provides various options to choose from to customize the appearance of model elements.

For further information on the facilities available through these menu options, see *UML Modeling with Enterprise Architect – UML Modeling Tool*.

Menu Option & Function Keys	Use to
Autosize [Alt]+[Z]	Auto-size a group of elements in a diagram to a best fit.
Default Appearance [Ctrl]+[Shift]+[E]	Set border, font and background color and border thickness for the selected element, as its default appearance.
Alternate Image [Ctrl]+[Shift]+[W]	Select an alternative image for the selected element.
Apply Image From Clipboard	Insert the image currently held on the clipboard.
Set Font	Change the font of the text displayed on the element in a diagram.

6.6.5 Position Submenus

These **Element** menu submenus enable you to size and position elements on the diagram, relative to each other.

The Alignment Sub-Menu

Use the **Alignment** sub-menu to align the selected element(s) to each other.

Menu Option &Function Keys	Use to
Left [Ctrl]+[Alt]+[Left]	Align left edges of elements.
Right [Ctrl]+[Alt]+[Right]	Align right edges of elements.

© 1998-2010 Sparx Systems Pty Ltd

Menu Option &Function Keys	Use to
Top [Ctrl]+[Alt]+[Up]	Align top edges of elements.
Bottom [Ctrl]+[Alt]+[Down]	Align bottom edges of elements.
Centers	Align centers of elements, horizontally or vertically.

The Make Same Sub-Menu

Use the **Make Same** sub-menu to make the selected elements the same width, the same height or both.

The Z Order Sub-Menu

Use the **Z Order** sub-menu to move the selected element(s) back, forward, to the front of all other elements or behind all other elements.

The Size Sub-Menu

Use the **Size** sub-menu to make the selected element(s) wider, narrower, taller or shorter by one increment. Alternatively, press **[Ctrl]+[→]**, **[←]**, **[↑]** or **[↓].**

The Move Sub-Menu

Use the **Move** sub-menu to move the selected element(s) left, right, up or down by one increment. Alternatively, press **[Shift]+[→]**, **[←]**, **[↑]** or **[↓].**

The Space Evenly Sub-Menu

Use the **Space** sub-menu to distribute the selected elements evenly.

Menu Option & Function Keys	Use to
Across [Alt]+[-]	Space elements evenly, horizontally.
Down [Alt]+[=]	Space elements evenly, vertically.

6.7 The Tools Menu

The **Tools** menu provides access to various tools including those related to code engineering, managing .EAP files, spelling options, external resources and customization of features such as configuring shortcuts.

Menu Option & Function Keys	Use to
Spell Check Project [Ctrl]+[F7]	Spell check 225 the current project.
Spell Check Current Package [Ctrl]+[Shift]+[F7]	Spell check 225 the current package.
Spelling Language	Specify the language to use for spell checking.
Data Management	Manage your project's data 55.
Manage .EAP File	Repair, compact or replicate 55 your .EAP file.
Run Patch	Execute an SQL patch. For further information on this and the following two options, see *UML Model Management*.
Export Reference Data	Export reference data to XML files for convenient model updating.
Import Reference Data	Import reference data from XML files for convenient model updating.

Menu Option & Function Keys	Use to
Import Technology	Import an MDG Technology file. (This method no longer recommended.)
Generate MDG Technology File	Display the MDG Technology Wizard. See *SDK for Enterprise Architect*.
Wordpad	Open Wordpad.
Windows Explorer	Open Windows Explorer. (Different options might be listed, to open other applications.)
Customize	Customize 56 the operation of Enterprise Architect.
Options [Ctrl]+[F9]	Customize your general settings through the Options 190 dialog 190.

6.7.1 Data Management Submenu

Use the options on this submenu to manage your project's data.

For further information on the options available on this menu, see *UML Model Management*.

Menu Option & Function Keys	Use to
Project Transfer	Move a complete project from one repository to another. **Note:** You cannot move a project from a source .EAP file of a version earlier than 3.5.0.
Project Compare	Compare the total project sizes of two projects.
Project Integrity Check [Shift]+[F9]	Check the data integrity of a project.

6.7.2 Manage .EAP File Submenu

Use the options on this submenu to repair, compact or replicate your .EAP file.

For further information on the options on this menu, see *UML Model Management,* especially the *Model Maintenance* and *Replication* topics.

Menu Option	Use to
Repair .EAP File	Repair an Enterprise Architect project. If a project has not been closed properly, in rare cases it might not open correctly. This option attempts to repair such projects. **Note:** All users must be logged off the project while it is being repaired.
Compact .EAP File	Compact an Enterprise Architect project. Eventually projects might benefit from compacting to conserve space. **Note:** Ensure everyone is logged off the target project, then select this option to compact the project.
Make Design Master	Make a design master project; this is the master project for creating replicas.
Create New Replica	Create a new replica from the Design Master.

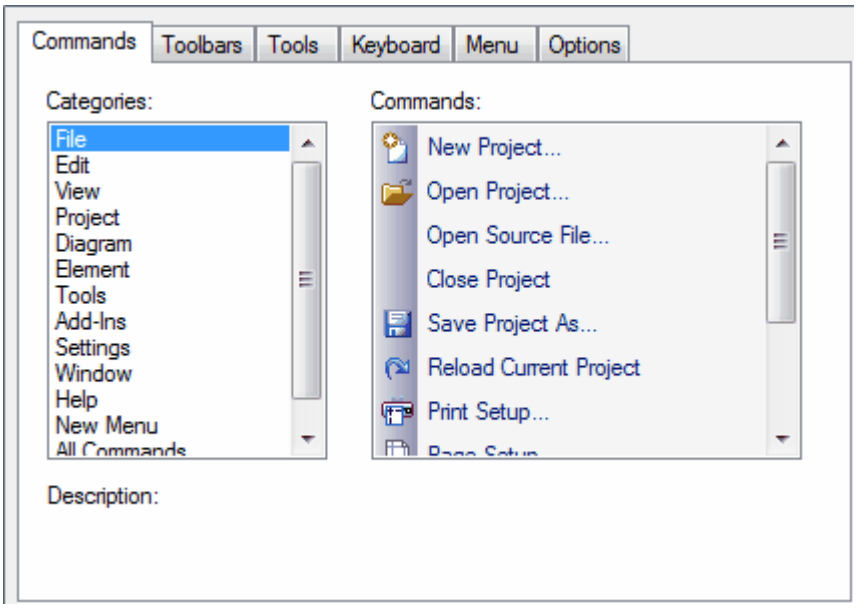
© 1998-2010 Sparx Systems Pty Ltd

Menu Option	Use to
Synchronize Replicas	Copy changes from one replica set member to another.
Remove Replication	Remove all replication features if you no longer require a model to be replicable.
Resolve Replication Conflicts	Resolve any conflicts caused when multiple users have changed the same element between synchronization points.

6.7.3 The Customize Dialog

The Customize dialog enables you to customize Commands 57, Toolbars 58, Tools 60, Keyboard Keystrokes 64, Menus 66 and Options 67 within Enterprise Architect. To display this dialog, either:

- Select the **Tools | Customize** 54 menu option, or
- At the far right of any toolbar 94, click on the drop-down arrow (if it is enabled 43) and on the **Add or Remove buttons** option, then select the **Customize** option.



Note:

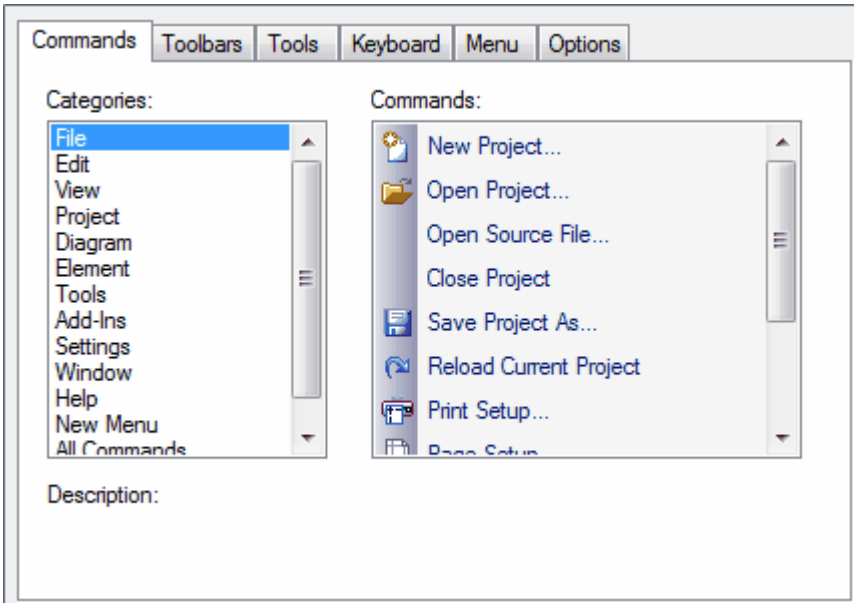
If a documented toolbar icon, keyboard combination or menu option does not appear to be available, select the appropriate tab and click on the **Reset** or **Reset All** button. This restores the toolbar, menu or key settings to the defaults.

However:

Be aware that this also removes any customized icons, options or combinations you might have set, because it is possible that the customization itself has displaced or affected the default setting.

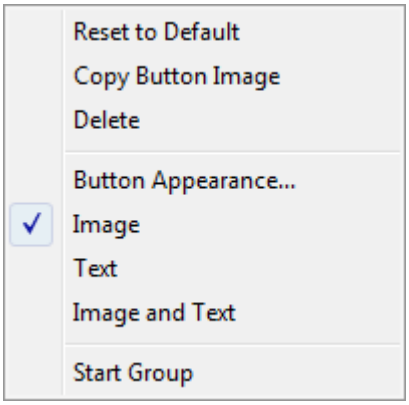
6.7.3.1 Customize Commands

The Customize dialog Commands tab provides access to many of Enterprise Architect's functions, enabling you to place them into a toolbar.



To add a command to a toolbar, click on the category in the Categories: panel and select the command from the list for that category in the Commands: panel. Drag the command on top of the toolbar to add it to.

If you right-click on the command icon in the toolbar while the Customize dialog is open, a context-sensitive menu displays. This menu offers options for deleting commands from a toolbar, and for changing the appearance of commands.



To remove a command from the toolbar, right-click on the command graphic or text and select the **Delete** menu option.

To change the appearance of a command graphic, right-click on the command graphic or text and select the **Button Appearance** context menu option. The Button Appearance dialog displays, which you can use to add graphical icons to commands that do not have them by default.

Note:

Some commands do not come with a convenient icon, which results in an empty toolbar button. Either avoid placing these commands on toolbars or use the context-sensitive menu to select an appropriate icon for the command.

© 1998-2010 Sparx Systems Pty Ltd

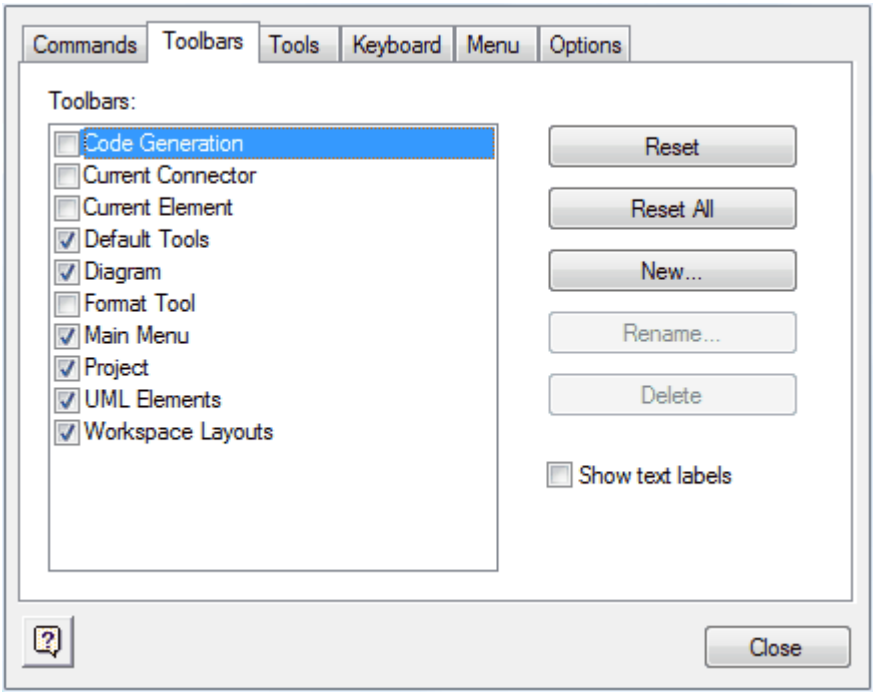
Tip:

Read the *Create a New Toolbar and Populate it with Commands* 58 procedure of the *Customize Toolbars* topic.

6.7.3.2 Customize Toolbars

The Toolbars tab on the Customize dialog enables you to:

- Hide or show toolbars by selecting the appropriate checkbox
- Rename toolbars
- Create new toolbars
- Delete toolbars
- Modify toolbar contents by dragging commands from the Commands 57 tab onto a visible toolbar
- Reset a toolbar (or all toolbars) to the default contents and position, and
- Display text labels under the toolbar icons (perhaps temporarily, just to check what the icons do).

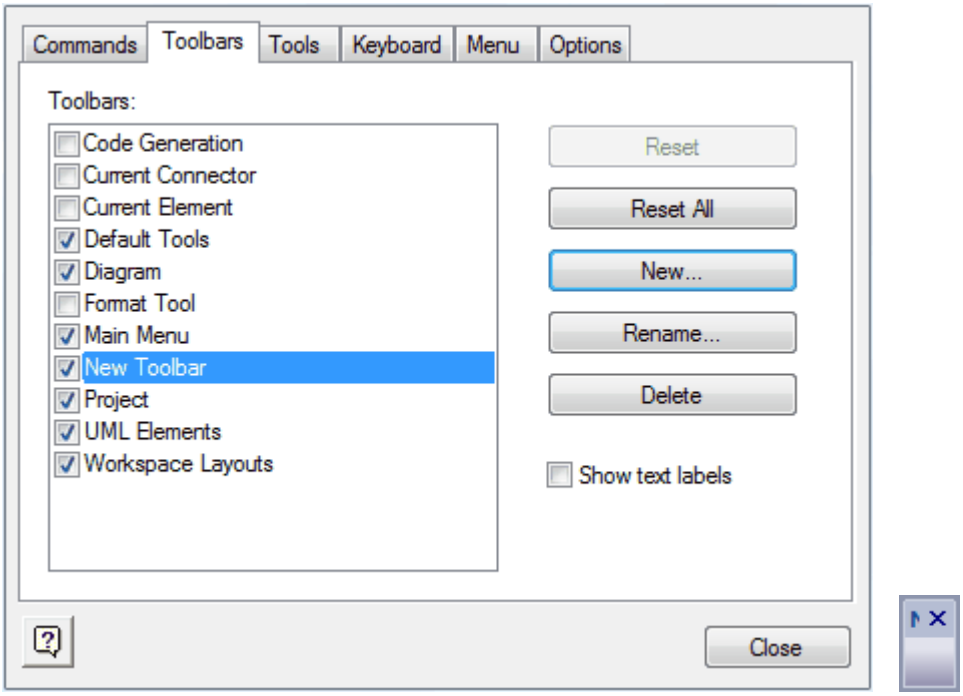


Create a New Toolbar and Populate it with Commands

To create a new toolbar and populate it with commands:

1. Select the **Tools | Customize** menu option. The Customize dialog displays.
2. Click on the Toolbars tab.
3. Click on the **New** button. The Toolbar Name dialog displays.

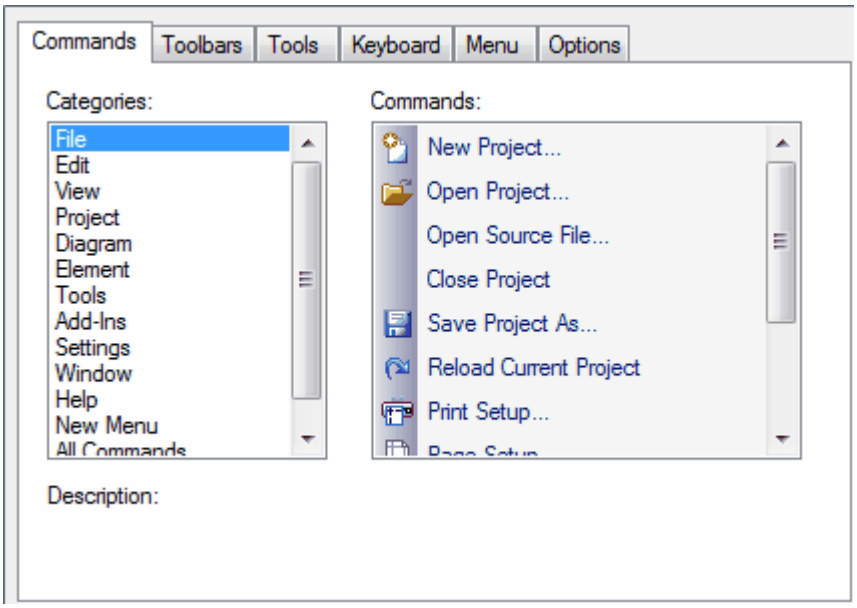
4. In the **Toolbar Name** field, type a name for your new toolbar and click on the **OK** button. Your new toolbar is created.



Note:

You can select the **Show text labels** checkbox to display textual descriptions of toolbar items.

5. Now add commands to your toolbar. Click on the Commands tab. This forces the new toolbar behind the Customize dialog, so you might have to drag the Customize dialog to the side to find your new toolbar.



7. Find the command to add to your toolbar in the **Commands** list. The **Categories** list on the left represents the Enterprise Architect menu structure and the **Commands** list updates each time you click on a different category.
8. Drag the selected command from the list into the new toolbar. If you selected the **Show text labels** checkbox, your toolbar should now look like this:

© 1998-2010 Sparx Systems Pty Ltd

If you did not select the **Show text labels** checkbox, your toolbar should look like this:

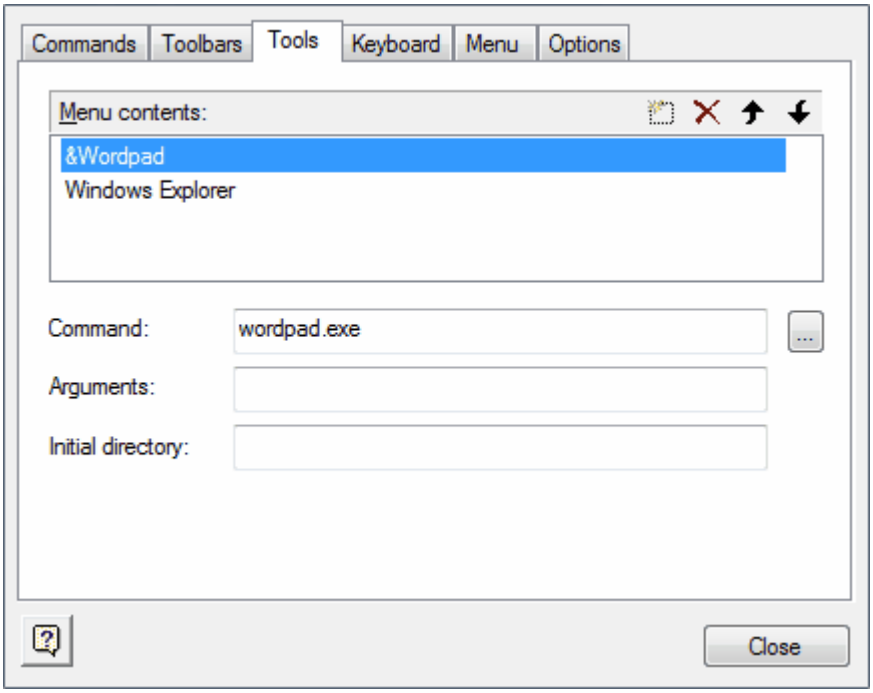
You can add as many commands to your toolbar as required. Your new toolbar behaves the same way as other toolbars; you can position it next to the other toolbars at the top of the application workspace, dock it to the side of the workspace or close it.

6.7.3.3 Custom Tools

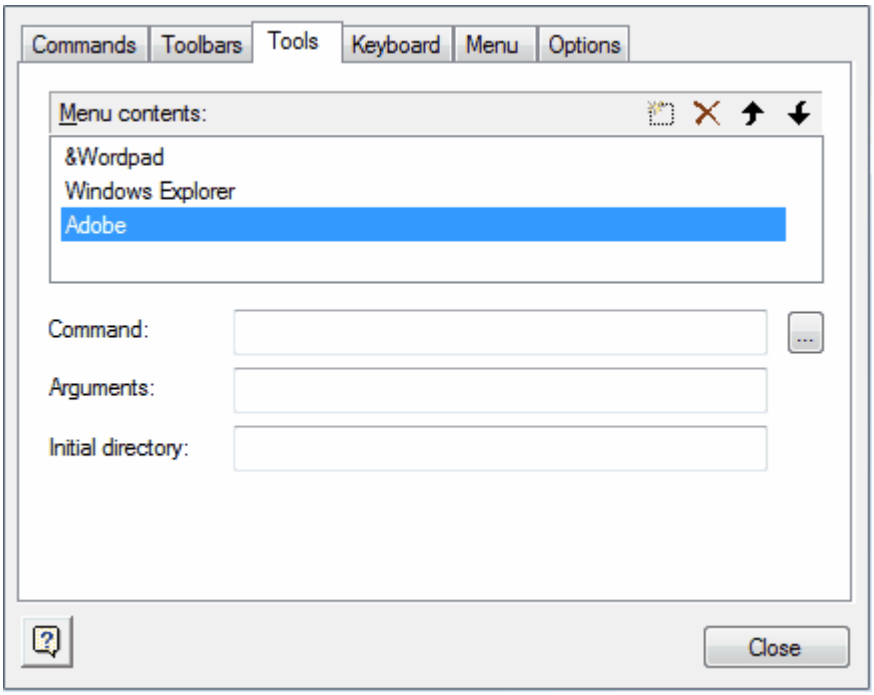
The Tools tab on the Customize dialog provides a means of extending the power of the Enterprise Architect desktop. From here you can configure custom tools and make them accessible from the **Main Menu**. You can create menu options that hyperlink to different applications, compilers, batch scripts, automation scripts, URLs or documentation.

Add and Configure Custom Tools

1. Select the **Tools | Customize** menu option. The Customize dialog displays.
2. Click on the Tools tab.



3. Click on the **New** icon (left of the red **X**). A blank field displays in the Menu contents list.

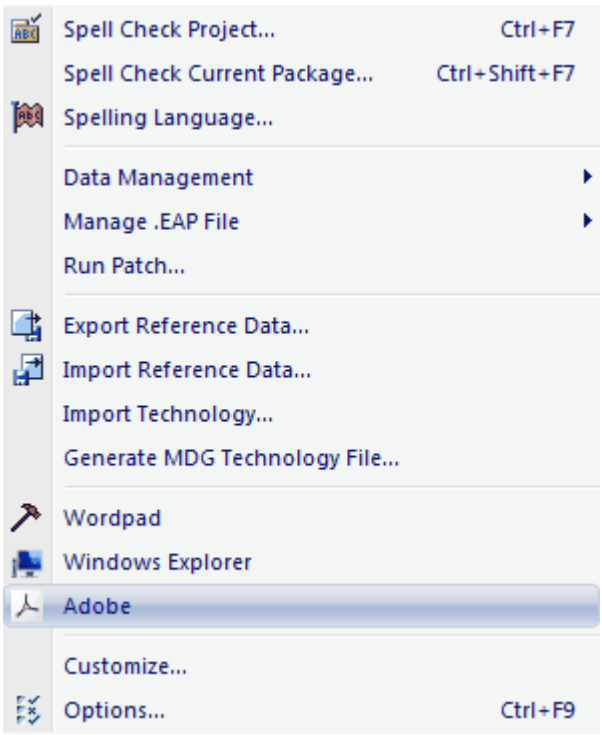


4. Type in the name of the tool as it should appear in the menu.
5. In the **Command** field, type the name of the tool .exe file to use; the tool must be a valid filename.

Note:

Programs installed with your operating system (such as Notepad, Wordpad) do not require a full file path. Programs installed separately (such as Microsoft Visual Studio) require the full file path in the **Command** field. If necessary, use the **[...]** (Browse) button to locate the tool in the file system (see Using Parameters 62).

6. Add any arguments required by the tool (see Opening External Tools 62 and Passing Parameters to External Applications 63), and specify an initial directory if required.
7. Close the Customize dialog. Your tool should have now been added to the **Tools** menu as shown below.



© 1998-2010 Sparx Systems Pty Ltd

6.7.3.3.1 Open External Tools

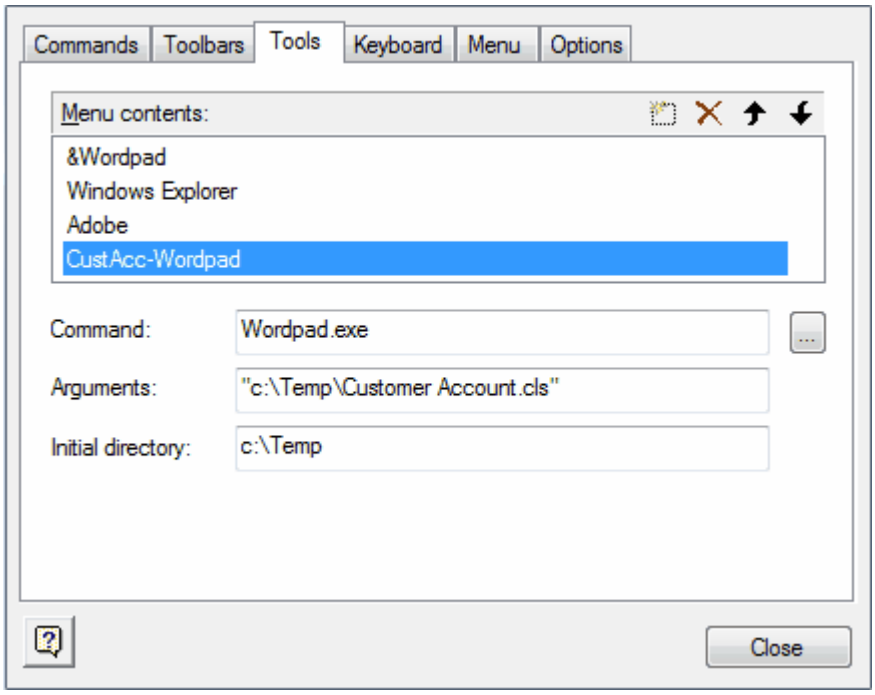
When configuring custom tools in Enterprise Architect, you can specify a file to be opened by the external application.

Select the **Tools | Customize** menu option. The Customize dialog displays; click on the Tools tab. Now you can:

- Specify a custom tool 60 (application) using the **Command** field
- Define a file to open or parameters to pass 63 to this application, using the **Arguments** field.

Example 1

This example opens the file c:\Temp\Customer Account.cls using Wordpad. If you save from within Wordpad the initial directory is c:\Temp.

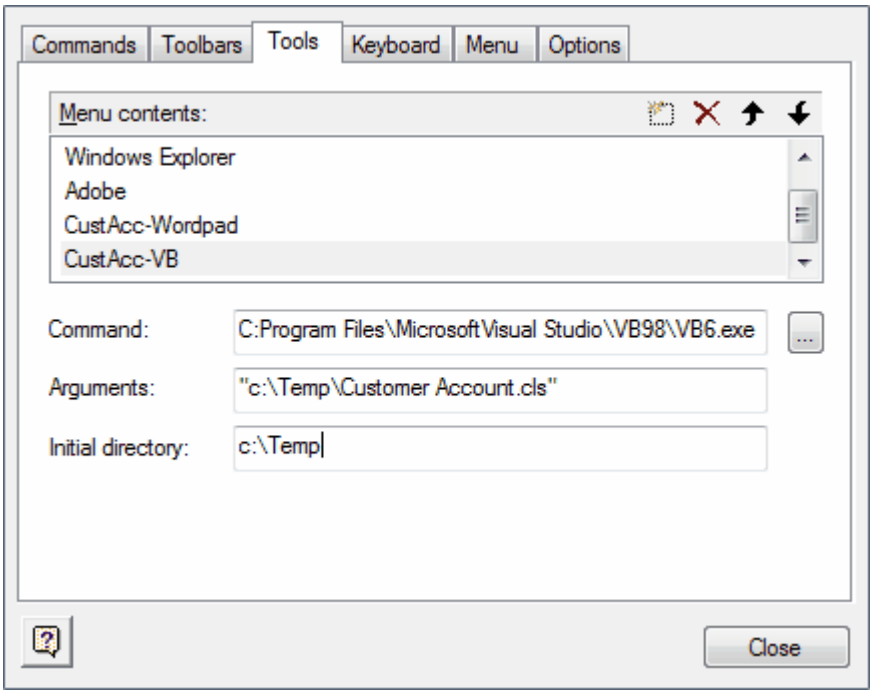


Tip:

If there are any spaces in the paths in the **Command**, **Arguments** or **Initial Directory** fields, you must enclose the whole path in double quotes. For example: **"**c:\Temp\Customer Account.cls**"** must have quotes but c:\Temp\CustomerAccount.cls does not have to have quotes.

Example 2

This example opens the file c:\Temp\Customer Account.cls using VB. As VB is not installed with the operating system, the whole file path for VB must be included in the **Command** field; you can select this using the **[...]** (Browse) button to locate the VB executable. If you save from within VB the initial directory is c:\Temp.

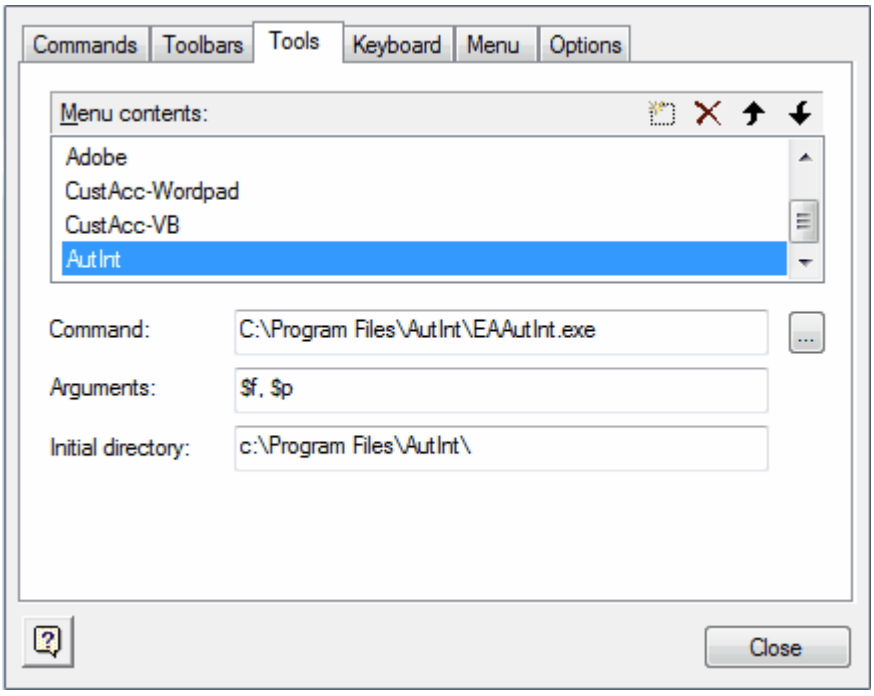


6.7.3.3.2 Pass Parameters to Applications

When configuring custom tools in Enterprise Architect, you can pass parameters to the application.

Select the **Tools | Customize** menu option. The Customize dialog displays; click on the Tools tab. Now you can:

- Specify a custom tool 60 (application) using the **Command** field
- Define a file to open 62 or parameters to pass to this application using the **Arguments** field.



The available parameters for passing information to external applications are:

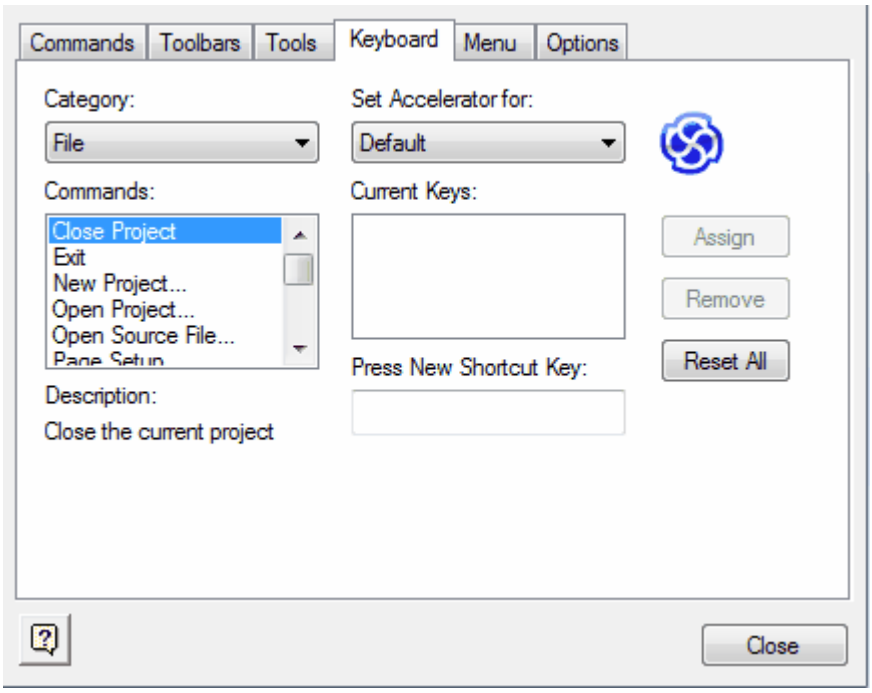
Parameter	Description	Notes
$f	Project Name	For example, C:\projects\EAexample.eap.
$F	Calling Application (Enterprise Architect)	Enterprise Architect.
$p	Current Package ID	For example, **144**.
$P	Package GUID	GUID for accessing this package.
$d	Diagram ID	ID for accessing associated diagram.
$D	Diagram GUID	GUID for accessing associated diagram.
$e	Comma separated list of element IDs	All elements selected in the current diagram.
$E	Comma separated list of element GUIDs	All elements selected in the current diagram.

Tip:

For more information on using the Automation Interface, visit www.sparxsystems.com/AutIntVB.htm.

6.7.3.4 Customize Keyboard

The Keyboard tab on the Customize dialog enables you to configure shortcuts used to access main menu options. This is convenient for creating additional shortcut keys or for changing the current configuration to match your work habits or other applications.



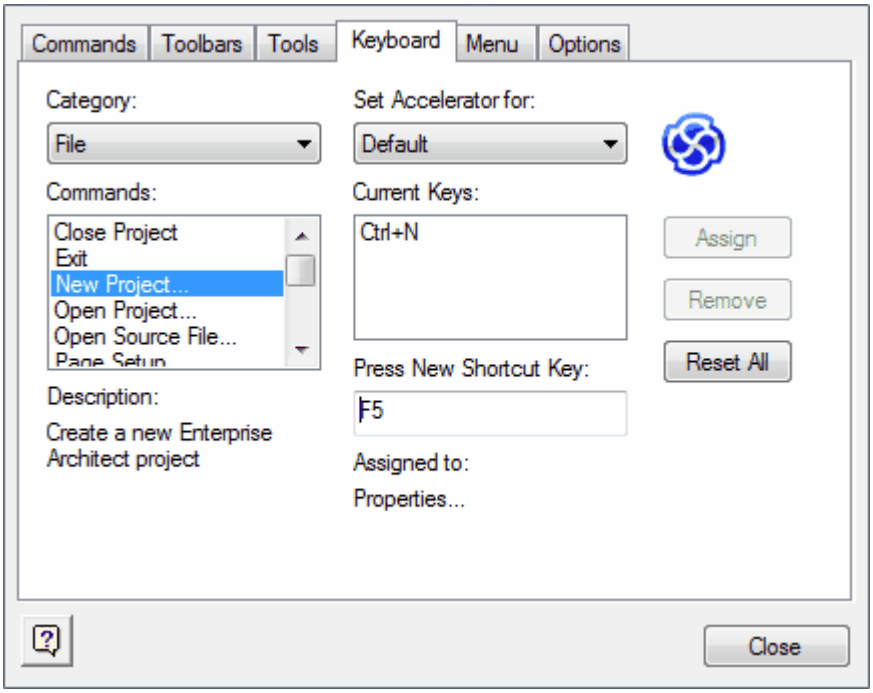
Modify Keyboard Shortcuts

To modify a keyboard shortcut, follow the steps below:

1. Select the **Tools | Customize** menu option. The Customize dialog displays.
2. Click on the Keyboard tab, and in the **Category** field click on the drop-down arrow and select the menu containing the command to modify.
3. In the **Command** field, click on the drop-down arrow and select the command. The current shortcut key (if any) for the command is displayed in the **Current Keys** field.
4. Move the cursor to the **Press New Shortcut Key** field and press the required shortcut key(s) for this command.

Note:

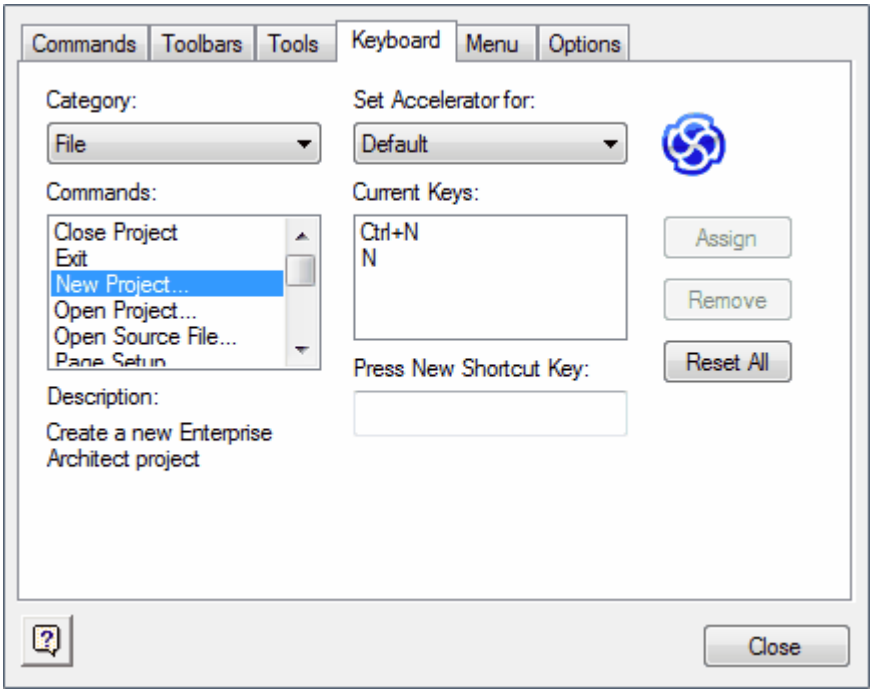
Press the actual keys to use. For example, to use **[F5]** press the **[F5]** key, don't type **F** then **5**.



Note:

In the example above, the **Assign** button is disabled. This is because **[F5]** is already a shortcut to view diagram properties. If this occurs you must select a different shortcut key.

5. Once you have selected an available shortcut, click on the **Assign** button to apply the change. In the example below, the new shortcut is **[N]**.



6. This has added a new shortcut so that both **[N]** and **[Ctrl]+[N]** create a new Enterprise Architect project.

© 1998-2010 Sparx Systems Pty Ltd

If you intend **[N]** to be the only shortcut for this action, select **[Ctrl]+[N]** in the **Current Keys** list and click on the **Remove** button.

Tip:

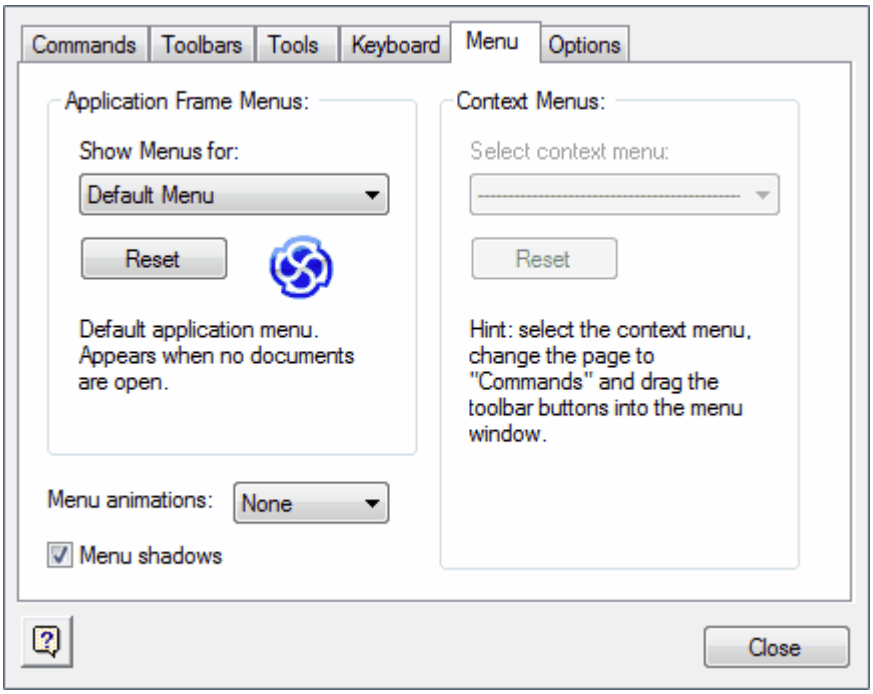
Remember that you can always revert to the default shortcut keys by clicking on the **Reset All** button.

Note:

Modified shortcut keys are stored in the registry, so they only affect the current user.

6.7.3.5 Customize Menu

The Menu tab on the Customize dialog enables you to customize the appearance of your menus.



Application Frame Menus

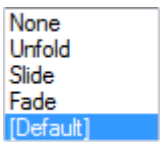
Currently the **Show Menus For** feature is disabled as Enterprise Architect is not an MDI application.

Context Menus

Currently this feature is disabled.

Menu Animations

The following menu animations can be selected from the **Menu animations** drop-down list:



Menu Shadows

Menu shadows can be toggled on or off by selecting or clearing the **Menu shadows** checkbox.

Remove Menu Options

Some menu options might not be of relevance to you. If you prefer not to display such options, follow the steps below:

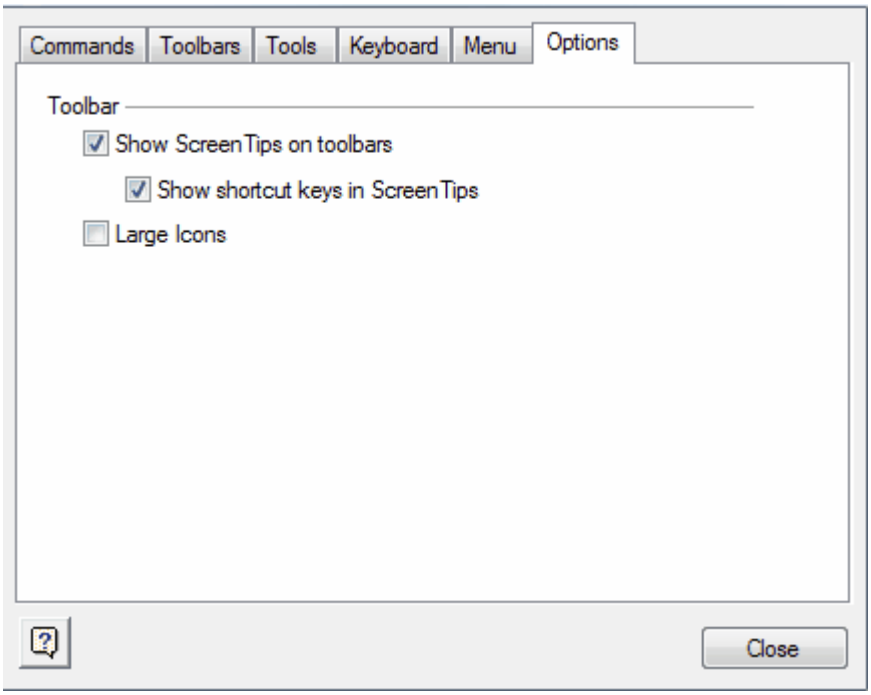
1. Whilst the Menu tab of the Customize dialog is displayed, click on the appropriate chain of options in the main menu bar to display the option to delete.
2. Right-click on the option and select the **Delete** option from the context menu.

Note:

When you perform a major upgrade of Enterprise Architect (such as from release 7.1 to 8.0) the menus are reset and deleted options are replaced.

6.7.3.6 Customize Options

The Options tab on the Customize dialog enables you to customize the appearance of toolbar items.



You can toggle the following options by selecting or clearing the checkboxes:

- **Show Screen Tips on toolbars**
- **Show shortcut keys in Screen Tips**
- Use **Large Icons**.

6.8 The Add-Ins Menu

The **Add-Ins** menu enables you to connect to, display information on, work with and manage your Add-Ins. The option displays only after you have installed an Add-In on your system.

Menu Option	Use to
Connect External Project	List external Add-Ins and, when you select one of them, open a project list for the Add-in. If there is only one active project available, the Add-In might automatically go on to open that project.
<Add-In Name>	Access the Add-In submenu 68 for the selected Add-In.
Manage Add-Ins	Display the Manage Add-Ins dialog, which you use to enable or disable Add-Ins for use.

© 1998-2010 Sparx Systems Pty Ltd

Menu Option	Use to
	Any technology loaded by an Add-In is automatically enabled; if you do not want to use it, you can disable it on the dialog. For further information, see *SDK for Enterprise Architect*.

Add-In Submenu

Menu Option	Use to
<Add-In specific options>	List options to perform various functions specific to the Add-In. For example, the MDG Technology For Zachman Framework, as an Add-In, has the options **Open Example Model** and **Insert New Framework Model**.
Help	Display the Help subsystem for the Add-In.
About	Display information on the Add-In installation, such as version, registration details and copyright statement.

6.9 The Settings Menu

The **Settings** menu enables you to configure various settings for your overall project. Configure the resources involved, general types, maintenance types, metrics and estimation types, stereotypes, Tagged Values, cardinality values, datatypes, language macros, local directories, image management, CSV import and export specifications, and reference data export/import.

Menu Option & Function Keys	Use to
People	Display the People dialog, which enables you to configure the authors, clients, resources and roles for your project. (See *UML Model Management.*)
General Types	Display the General Types dialog, which enables you to configure requirements, status types, constraints and scenarios for your project. (See *UML Model Management*.)
Maintenance	Display the Maintenance dialog, which enables you to track problem types and test types. (See *UML Model Management*.)
Project Indicators	Define the project indicators (risks, efforts and metrics) used in Resource Management. (See *Project Management with Enterprise Architect*.)
Estimation Factors	Display the Estimation factors dialog, which enables you to configure estimation factor types (Technical Complexity Factors, Environmental Complexity Factors, and Default Hour Rate) for your project. (See *Project Management with Enterprise Architect*.)
UML	Configure stereotypes, Tagged Value Types and the cardinality list for your project. (See *UML Model Management*.)
MDG Technologies	Display the MDG Technologies dialog, which enables you to load in and use MDG Technology files. (See *Extending UML With Enterprise Architect*.)
Namespaces	Locate and delete model namespaces. (See *Code Engineering Using UML Models.*)
Template Package	Configure or change the default element template directory. (See *UML Modeling with Enterprise Architect – UML Modeling Tool*.)
Local Paths	Configure local directories and paths. (See *Code Engineering Using UML Models* .)
Auto Name Counters	Configure automatic naming for elements. (See *UML Modeling with Enterprise Architect – UML Modeling Tool.*)

Menu Option & Function Keys	Use to
Code Datatypes	Add, modify and delete programming languages datatypes. (See *UML Model Management*.)
Database Datatypes	Add, modify and delete database datatypes. (See *Code Engineering Using UML Models.)*
Preprocessor Macros	Add and delete preprocessor macros. (See *Code Engineering Using UML Models* .)
Code Generation Templates [Ctrl]+[Shift]+[P]	Modify code generation templates using the Code Templates Editor. (See *Code Engineering Using UML Models*.)
Transformation Templates [Ctrl]+[Alt]+[H]	Modify transformation templates using the Transformation Templates Editor. (See the *MDA Transformations User Guide*.)
Images	Open the Image Manager. (See *UML Modeling with Enterprise Architect – UML Modeling Tool*.)
Colors	Configure the custom colors for the project. There are two options: • **Get Project Custom Colors** - get the custom colors • **Set Project Custom Colors** - set the custom colors Custom colors are as used in the Appearance dialog. (See *UML Modeling with Enterprise Architect – UML Modeling Tool*.)

6.10 The Window Menu

The **Window** menu provides access to various actions related to configuring open windows.

Menu Option & Function Keys	Use to
Full Screen	Reset the display to full screen so that only the work area and main menu are shown - no toolbars or windows. To return to your normal working display, either click on the **Full Screen** option again or click on the **Close Full Screen** pop-up menu option. You can also restore individual menus and toolbars using the **View** menu options.
Close Active Window [Ctrl]+[F4]	Close the window that currently has focus.
Autohide Active Window [Ctrl]+[Shift]+[F4]	Autohide 138 the window that currently has focus.
Autohide All Docked Windows	Autohide 138 all windows that are docked.
Close Current View	Close the current view.
Close All Except Current	Close all except the currently selected view.
Reload Current View	Refresh the current view. (See *Version Control Within UML Models Using Enterprise Architect*.)
Save All Modified	Save all modified data.
Close All	Close all opened windows in the main tab view.

© 1998-2010 Sparx Systems Pty Ltd

Menu Option & Function Keys	Use to
Always on Top	Force the main Enterprise Architect window to be on top of all other windows.
Set Focus to Current View [Ctrl]+[Shift]+[0]	Make the current view the active one, so that key strokes immediately act on that view.

6.11 The Help Menu

The **Help** menu provides access to the Enterprise Architect help files, the Read Me file, the Enterprise Architect End User License Agreement and various features on the Sparx Systems website.

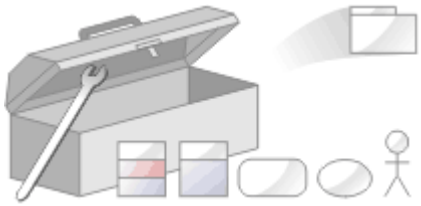
Menu Option	Use to
About EA	View information about Enterprise Architect, including your registration details.
Register and Manage License Key(s)	Configure and manage the license keys used to register the name and keys for Enterprise Architect and its Add-Ins. For more information see *Getting Started with Enterprise Architect*.
Read Me	View the *Readme.txt* file, which details the changes and enhancements in Enterprise Architect, build by build.
Open Example Model	Open the *EA.Example* model provided with the Enterprise Architect installer.
View License Agreement	View the Enterprise Architect End User License Agreement.
Ordering Information	View information on how to purchase Enterprise Architect. (See *Getting Started with Enterprise Architect.)*
Help Contents	Display the introductory page of the Enterprise Architect Help.
Keyboard Accelerator Map	View the keyboard accelerator map. You can customize your keyboard shortcuts 64, if required.
On-Line Resources	See below.
Enterprise Architect on the Web	Visit the Sparx Systems website.

The On-Line Resources Sub-Menu

Access help and resources on-line at the Sparx Systems website.

Menu Option	Use to
User Forum and News	Visit the Enterprise Architect user forum.
Request-a-Feature	Request a feature you would like to see in Enterprise Architect.
Bug Report Page	Report the details of a bug you have found in Enterprise Architect.
Latest Version Details	Display the Announcements folder of the user forum, providing details of the latest Enterprise Architect build.
Automation Interface	Access the Enterprise Architect Automation Interface pages on the Sparx Systems website.
Introducing UML	Access the Sparx Systems online UML tutorials.
Pricing and Purchase Options	Purchase or upgrade Enterprise Architect over the internet.

7 The Enterprise Architect Toolbox



What is the Toolbox?

The Enterprise Architect UML Toolbox is a panel of icons that you use to create elements and connectors on a diagram. Within the Toolbox, related UML elements and connectors are organized into *pages,* each page containing the elements or connectors used for a particular type of diagram. The diagrams include standard UML diagrams, Enterprise Architect Extended diagrams, and any MDG Technologies and UML Profiles that you have added to Enterprise Architect. When you open a diagram, the Toolbox automatically provides the element and relationship pages corresponding to the diagram type. This does not prevent you using elements and connectors from other pages in a given diagram, though some combinations might not represent valid UML.

Display the Toolbox

To display the Toolbox, select the **View | Diagram Toolbox** menu option, or press **[Alt]+[5]**.

The Toolbox can be docked on either side of the diagram, or free floated on top of the diagram to expose more surface for editing.

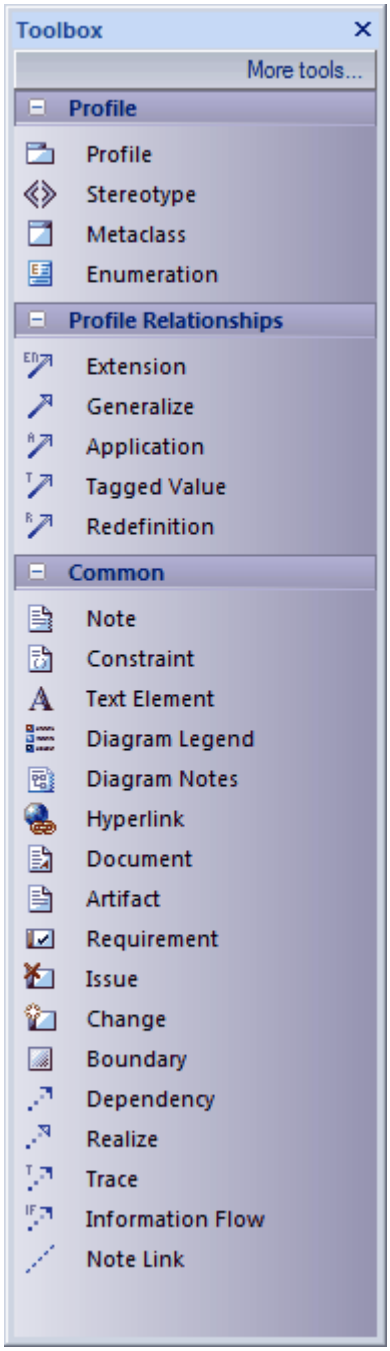
Tip:

You can also hide and show the whole Toolbox using the **Show Element Toolbox** button on the Workspace Views toolbar.

To display specific pages in the Toolbox, select the **More Tools** option at the top of the Toolbox and select the appropriate UML, Extended or customized diagram type from the menu.

In most cases, three pages display: <type> elements, <type> Relationships and Common. If you select the **<default>** option, you display only the Common page.

© 1998-2010 Sparx Systems Pty Ltd



Create Elements and Connectors:

1. In the Project Browser, double-click on the icon against the required diagram. The diagram opens with the appropriate Toolbox pages for that diagram type. (If you want a different set of elements and connectors, click on **More tools** and select the appropriate diagram type as explained above).
2. Click on the required item; for example, the *Class* element or *Associate* relationship.
3. For element items, click anywhere on the diagram to place the new element.
4. For connector items, drag the cursor between the source and target elements on the diagram. The solid border of the elements changes to a hatched border as you pass the cursor over them, indicating the source and potential target elements. To add bends to the connector, press **[Shift]** as you change the drag direction of the cursor.

   Alternatively, drag from the source element to an empty area of the diagram; the Quick-linker 188 enables you to create the target element.
5. Edit the element properties or connector properties, as required. (See *UML Modeling with Enterprise Architect – UML Modeling Tool.*)

Notes:

- The Toolbox pages relate to specific UML diagram types.
- Dropping a Package element from the Toolbox into a diagram creates a new package in the Project Browser, and a default diagram of the same type as the current diagram.

Tips:

- If you are creating several elements of one type, after creating the first just press **[Shift]+[F3]** or **[Ctrl]+**click to create the next element of that type. For connectors, click on the source element and press **[F3]** to create another connector of the same type.
- You can change an unstereotyped element to one of its stereotyped elements (see *Extending UML With Enterprise Architect*) by dragging the stereotyped element from the Toolbox onto the unstereotyped element in the diagram. For example, you can stereotype a Class by dragging a Table element or a Profiled Class element onto it.
- If the diagram element already has the stereotype, you can also drag the Toolbox element onto it to synchronize the element's stereotype Tagged Values (see *Extending UML With Enterprise Architect*).

Customize The Toolbox

You can customize the Toolbox pages by pinning them 73 within the Toolbox, or by adding MDG Technologies and UML Profiles to the Toolbox. (See *Extending UML With Enterprise Architect.*)

Note:

Enterprise Architect provides Toolbox pages for a wide range of MDG Technologies, such as *Archimate*, *BPEL, BPMN, Data Flow Diagrams, ICONIX* and *Mind Mapping*, as part of the initial install.

You can also change other features of the Toolbox appearance - see *UML Toolbox Appearance Options* 73.

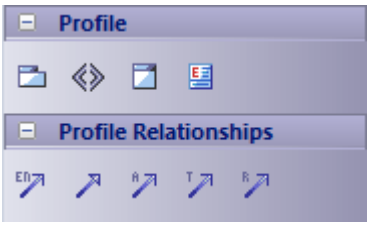
7.1 UML Toolbox Appearance Options

You can modify the appearance of the Enterprise Architect UML Toolbox pages in several ways, through the context menu. Right-click on the Toolbox page to display the context menu.

Note:

On a Toolbox page for an MDG Technology or UML Profile, if you right-click directly on a profile element an additional option - **Synchronize Stereotype** - is available at the end of the context menu. This enables you to synchronize the Tagged Values and constraints for all elements created from the selected profile element. (See *Extending UML With Enterprise Architect.*)

- To hide the element or relationship labels (and subsequently redisplay them), select the **Hide Labels** (or **Show Labels**) context menu option. The icons in the page then 'wrap' within the page, without text labels.



  When you hide the labels, you can display the label of an individual element or relationship by moving the cursor over the icon.
- To 'pin' the page so that it displays for any group in the Toolbox, select the **Pin in Toolbox** menu option. (This is not available on the Common page, which displays in all groups anyway.)

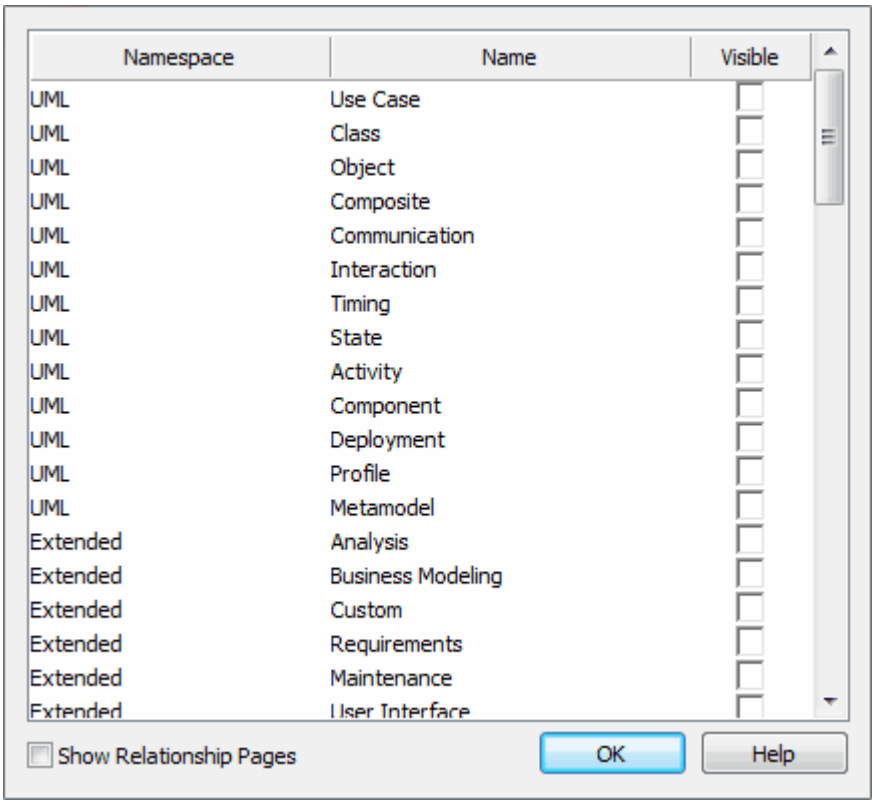
  For example, if you 'pinned' the Class elements page, and switched to the Communication pages, the Toolbox would include a collapsed Class elements page underneath the Communication pages.
- To unpin the page so that it displays only in its own Toolbox group, right-click on it and select the **Unpin from Toolbox** context menu option.
- To collapse a page to just show the heading (<type> elements, <type> Relationships or Common), click on the 'minus' box at the left of the page heading. To expand the page again, click on the heading. Alternatively, collapse the page by right-clicking on the page and selecting the **Collapse** context menu option.

Set Toolbox Visibility

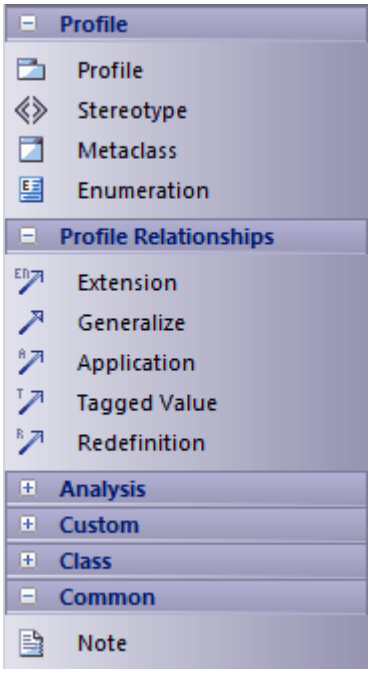
To tailor the Toolbox to list all pages you require at the same time, follow the steps below:

1. Click on the **Set Toolbox Visibility** context menu option. The Visible Toolbox Pages dialog displays.

© 1998-2010 Sparx Systems Pty Ltd



2. By default, the dialog lists the *element* pages only, in the order: UML pages, Extended pages, MDG Technology pages. To include the corresponding *relationship* pages, select the **Show Relationship Pages** checkbox at the bottom of the dialog.
3. For each page to display on the Toolbox, select the **Visible** checkbox. Deselect the checkbox if you no longer require a page to be displayed.
4. When you have defined the list of pages to display, click on the **OK** button. The pages you have selected are pinned to the Toolbox in a collapsed state, underneath the current diagram-type pages.



5. To expand a page, click on the heading. You can remove a page individually by expanding it, right-clicking on it and selecting the **Unpin from Toolbox** context menu option.

Note:

MDG Technologies can impose their own Toolbox page visibility. For example, if ICONIX is the active technology, all six ICONIX pages are automatically exposed in the Toolbox. If the active Technology pages duplicate UML or Extended pages (as the ICONIX pages do) then the pinned Technology pages override and replace the pinned UML and Extended pages.

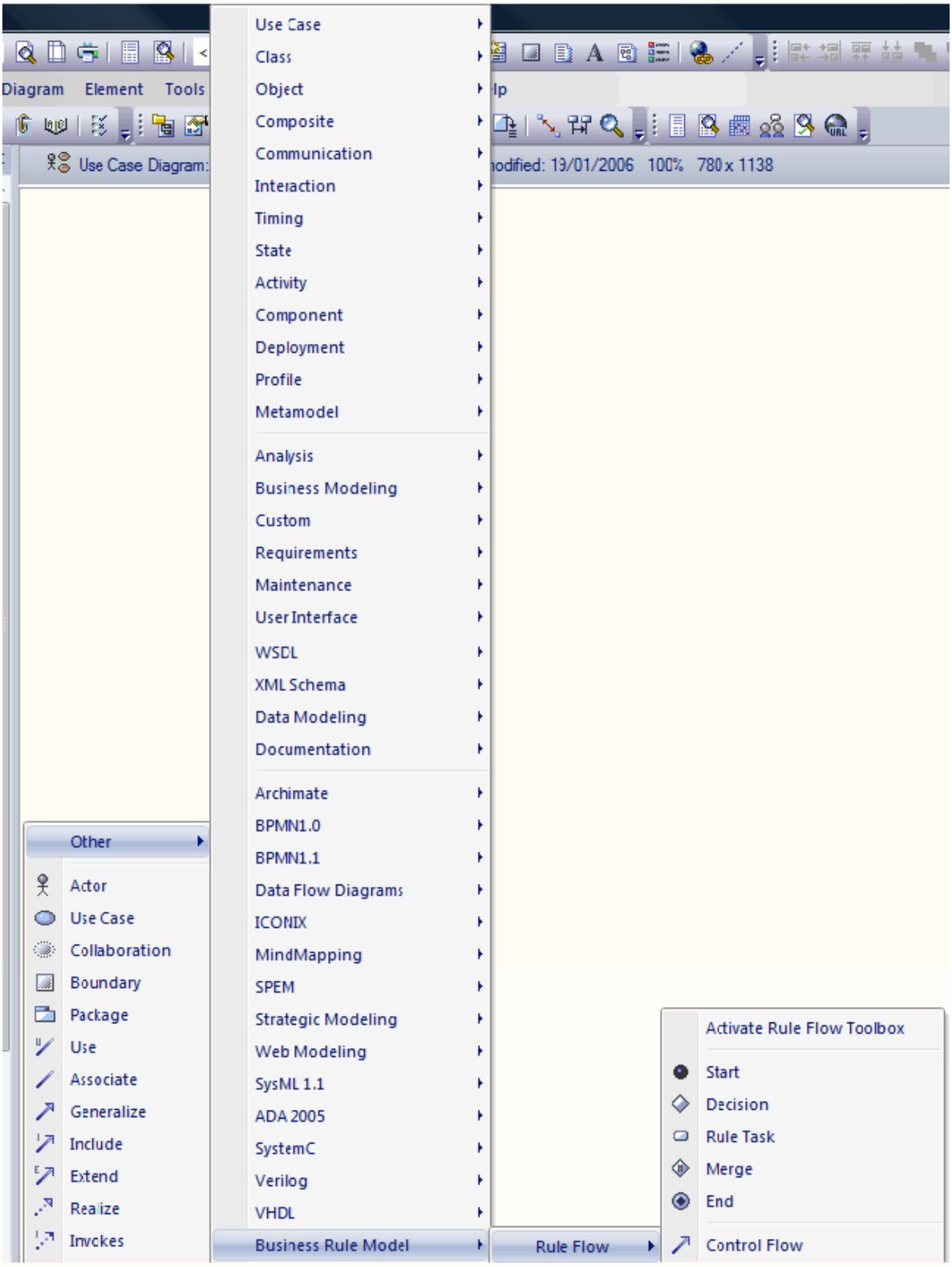
For example, if ICONIX is active and you have pinned the Extended Analysis page, the Analysis page in the list is the ICONIX-defined page, not the Extended Analysis page.

7.2 UML Toolbox Shortcut Menu

To add elements and connectors into a diagram, you can access the **UML Toolbox** shortcut menu instead of employing the full Enterprise Architect UML Toolbox. The menu provides options to select:

- **Elements** specific to the current diagram type (*Use Case* in the example shown below)
- **Relationships** specific to the current diagram type
- Elements and relationships from any pages pinned in the Toolbox
- **Common** elements and relationships
- Elements and connectors for **other** diagram types.

© 1998-2010 Sparx Systems Pty Ltd



The advantage of using the **UML Toolbox** shortcut menu is that it provides an increased amount of the workspace to be used for diagramming rather than to display fixed (instead of pop-up) menus.

To use the **UML Toolbox** shortcut menu, follow the steps below:

1. Open a diagram.
2. Either:
   - Click on the diagram background and press **[Insert]** or **[Spacebar]**

- Press and hold **[Ctrl]** and right-click on the diagram background.

The shortcut menu displays, listing the current diagram-type elements and connectors.

3. If necessary, select the **Other** option or a pinned Toolbox page option to list elements and connectors for a different diagram type.
4. Select the element or connector to include in the diagram. The object is added to the diagram.

If you select the **Other** context menu option, the final menu in the sequence offers the **Activate <Type> Toolbox** option. This opens and activates the corresponding page in the UML Toolbox, if the Toolbox is visible.

Note:

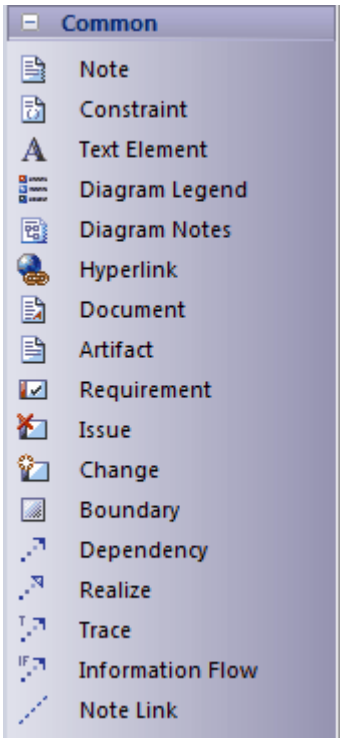
As for the UML Toolbox itself, if an MDG Technology:

- is active
- automatically pins Toolbox pages and
- duplicates UML or Extended pages

the pinned Technology pages override and replace the pinned UML or Extended pages in the initial UML Toolbox shortcut menu.

7.3 Common Group

The Common page of elements and relationships is displayed at the bottom of every other group. It contains the elements and relationships that can be used on any diagram.



Toolbox Elements and Connectors

Note:

For more information on each of these elements and connectors, see the *UML Dictionary.*

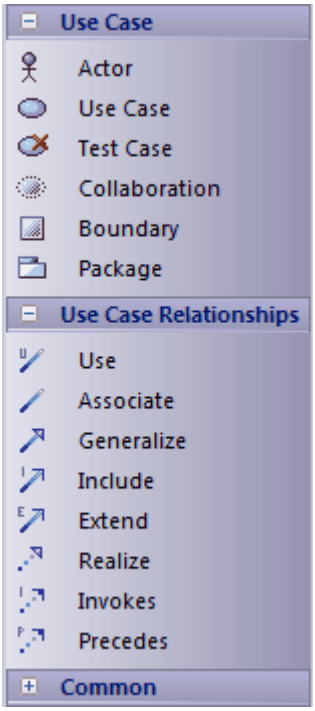
Common Elements	Common Connectors
Note	Dependency

© 1998-2010 Sparx Systems Pty Ltd

Common Elements	Common Connectors
Constraint	Realize
Text Element	Trace
Diagram Legend	Information Flow
Diagram Notes	Note Link
Hyperlink	
Document	
Artifact	
Requirement	
Issue	
Change	
Boundary	

7.4 Use Case Group

Use Case elements are used to build Use Case models. These describe the functionality of the system to be built, the requirements, the constraints and how the user interacts with the system. Often Sequence diagrams are associated with Use Cases to capture work flow and system behavior.



The Use Case group is used to model the system functionality from the perspective of a system user. The user is called an *Actor* and is drawn as a stick figure, although the user could be another computer system or similar. A *Use Case* is a discrete piece of functionality the system provides that enables the user to perform some piece of work or something of value using the system.

Examples of Use Cases are: *login, open account, transfer funds, check balance* and *logout*; each of these implies some purposeful and discrete functionality the system is to provide to a user.

A *Test Case* describes what must be set up in order to test a particular feature.

The connectors available include: *associate* (an actor uses a Use Case), *extend* (one Use Case can extend another), *include* (one Use Case can include another) and *realize* (this Use Case might realize some business requirement).

To add an element to the current diagram, click on the required icon and drag it into position on the diagram. Set an element name and other properties as prompted.

To add a relationship, click on the required icon, then click on the start element in the diagram and drag to the end element.

Note:

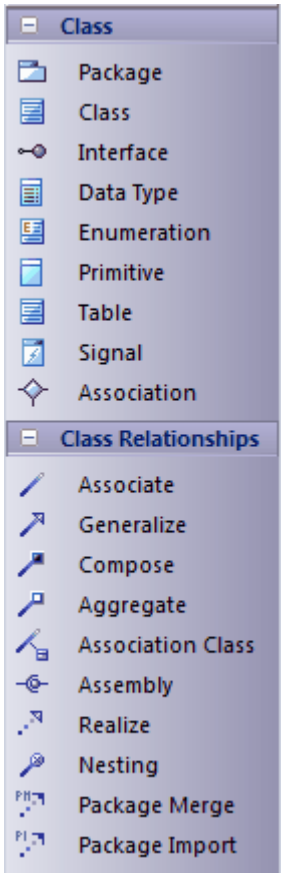
Invokes and *Precedes* relationships are defined by the Open Modeling Language (OML). They are stereotyped *Dependency* relationships; Invokes indicates that Use Case A, at some point, causes Use Case B to happen, whilst Precedes indicates that Use Case C must complete before Use Case D can begin.

For more information on these diagram, connector and element types, see the *UML Dictionary.*

7.5 Class Group

The Class group can be used for Package diagrams, Class diagrams and Object diagrams: those that usually display elements concerned with the logical structure of the system. These include Objects, Classes and Interfaces. Logical models can include domain models (high level business driven object model) to strict development Class models (define inheritance, attributes, operations).

© 1998-2010 Sparx Systems Pty Ltd



The Class group is used for creating Class models and database models. Class modeling is done using the *Class* and *Interface* elements, as well as occasional use of the *Object* element to model Class instances. You can add Association or Aggregation relationships. See the Class Model 13 for an example of this.

Use the *Table* element to insert a stereotyped Class for use in database modeling. See the *Data Modeling* topic in *Code Engineering Using UML Models* for more details.

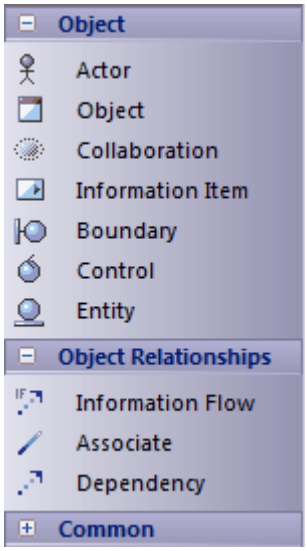
To add an element to the current diagram, click on the required icon and drag it into position on the diagram. Set an element name and other properties as prompted.

To add a relationship, click on the required icon, click on the start element in the diagram and drag to the end element.

For more information on these diagram, connector and element types, see the *UML Dictionary.*

7.6 Object Group

The Object group is used to create Object diagrams. Object diagrams reflect multiplicity and the roles instantiated Classes could serve. They are useful in creating different cases in which relationships and Classes are applied.



The user is called an *Actor* and is drawn as a stick figure, although the user could be another computer system or similar.

An *Object* is an instance of a Class.

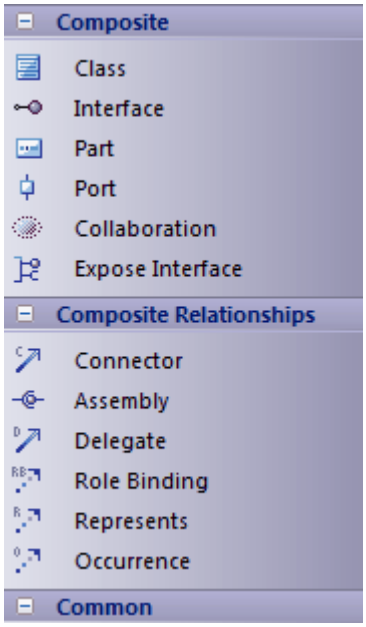
To add an element to the current diagram, click on the required icon, and drag it into position on the diagram. Set an element name and other properties as prompted.

To add a relationship, click on the required icon, then click on the start element in the diagram and drag to the end element.

For more information on these diagram, connector and element types, see the *UML Dictionary.*

7.7 Composite Group

The Composite group is used for Composite Structure diagrams, which reflect the internal collaboration of Classes, Interfaces or Components to describe a functionality or to express run-time architectures, usage patterns and the participating elements' relationships, which static diagrams might not show.



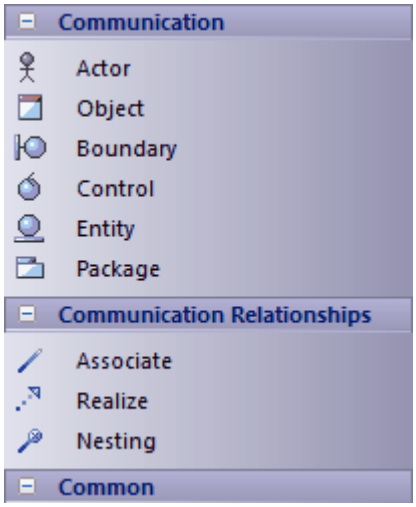
To add an element to the current diagram, click on the required icon, and drag it into position on the diagram. Set an element name and other properties as prompted.

To add a relationship, click on the required icon, then click on the start element in the diagram and drag to the end element.

For more information on these diagram, connector and element types, see the *UML Dictionary.*

7.8 Communication Group

The Communication group is used to model dynamic interactions between elements at run-time. The actor element models a user of the system, while the other elements model things within the system, including standard elements (rectangular element), user interface component (circle with left positioned vertical bar), controller (circle with arrow head in top most position) and entity (circle with bar at bottom).



Communication diagrams are used to model work flow and sequential passing of messages between elements in real time. They are often placed beneath Use Case elements to further expand on Use Case behavior over time.

To add an element to the current diagram, click on the required icon, and drag it into position on the diagram. Set an element name and other properties as prompted.

To add a relationship, click on the required icon, then click on the start element in the diagram and drag to the end element.

Note:

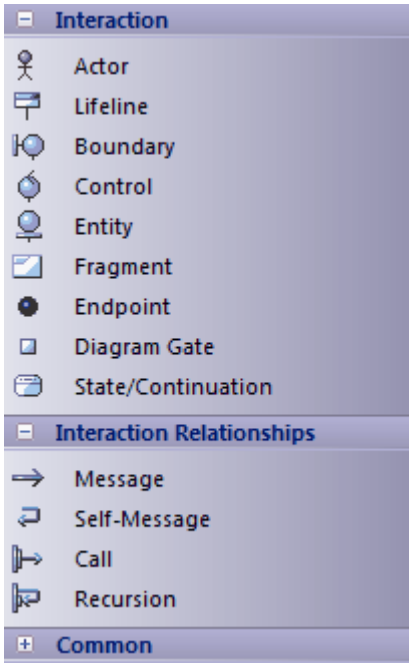
Communication diagrams were know as Collaboration diagrams in UML 1.4.

For more information on these diagram, connector and element types, see the *UML Dictionary.*

© 1998-2010 Sparx Systems Pty Ltd

7.9 Interaction Group

The Interaction group is used for Interaction diagrams (Sequence, Timing, Communication or Interaction Overview), which are used to model work flow and sequential passing of messages between elements in real time. They are often placed beneath Use Case elements to further expand on Use Case behavior over time.



The Interaction group is used to model dynamic interactions between elements at run-time. The *Actor* element models a user of the system, while the other elements model things within the system, including standard elements (Lifeline), user interface component (Boundary), controller and Entity. The meaning of the element symbols is discussed further in the *Sequence diagrams* topic in the *UML Dictionary*. The *Message* (sequence) relationship is used to model the flow of information and processing between elements.

Note:

Messages can be simple or recursive calls.

To add an element to the current diagram, click on the required icon, and drag it into position on the diagram. Set an element name and other properties as prompted.

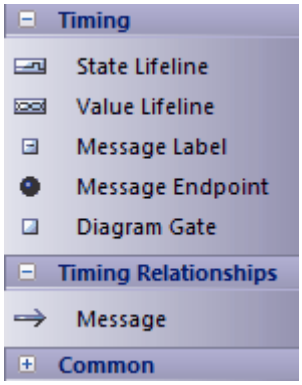
To add a relationship, click on the required icon, then click on the start element in the diagram and drag to the end element.

For more information on these diagram, connector and element types, see the *UML Dictionary.*

7.10 Timing Group

The Timing group is used solely for Timing diagrams, which use a time-scale to define the behavior of objects. The time-scale visualizes how the objects change state and interact over time. Timing diagrams can be used for defining hardware-driven or embedded software components, and time-driven business processes.

Timing diagrams can be used for defining hardware-driven or embedded software components, and time-driven business processes.



A *Lifeline* is the path an object takes across a measure of time, indicated by the x-axis.

A *State Lifeline* follows discrete transitions between states, which are defined along the y-axis of the timeline. Any transition has optional attributes of timing constraints, duration constraints and observations.

A *Value Lifeline* shows the lifeline's state across the diagram, within parallel lines indicating a steady state. A cross between the lines indicates a transition or change in state.

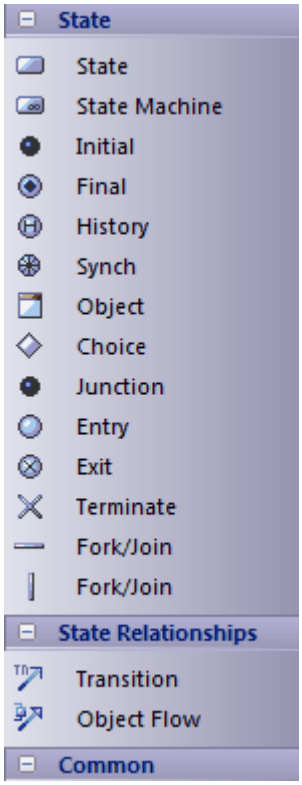
To add an element to the current diagram, click on the required icon, and drag it into position on the diagram. Set an element name and other properties as prompted.

To add a relationship, click on the required icon, then click on the start element in the diagram and drag to the end element.

For more information on these diagram, connector and element types, see the *UML Dictionary.*

7.11 State Group

The State group is used by State Machine diagrams to show the enableable states a Class or element might be in and the transitions from one state to another. These diagrams are often placed under a Class element in the Project Browser to illustrate how a particular element changes over time.



The State group provides elements common to State Machine diagrams; basically the *State*, start and end nodes and the *Object Flow* relation. State Machine diagrams are used to model the states or conditions that elements might be in at runtime, such as *active, inactive, idle, accelerating* or *braking*. States can have substates; for example, *accelerate* or *brake* might be substates of *active*.

To add an element to the current diagram, click on the required icon and drag it into position on the diagram. Set an element name and other properties as prompted.

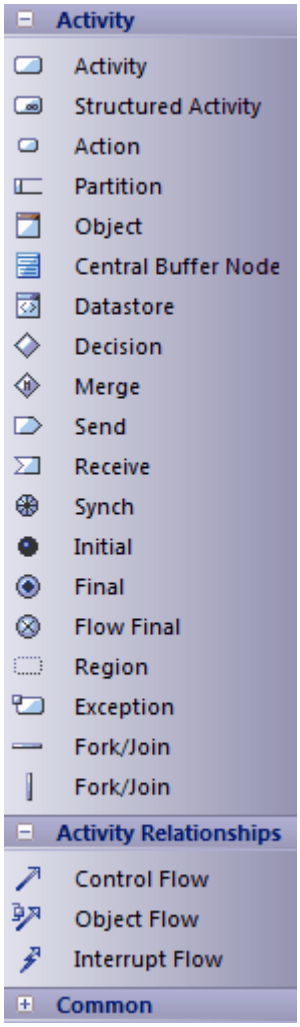
To add a relationship, click on the required icon, then click on the start element in the diagram and drag to the end element.

For more information on these diagram, connector and element types, see the *UML Dictionary.*

7.12 Activity Group

The Activity group is used to model system dynamics from a number of viewpoints in Activity diagrams and Interaction Overview diagrams. An *Activity* is some work that is carried out; it might overlap several Use Cases or form only a part of one Use Case. *Send* and *Receive* events are included as triggers. A *Decision* element marks a point where processing might split based on some outcome or value. The *Flow* relation models an active transition and synch points are used to split and rejoin periods of parallel processing.

© 1998-2010 Sparx Systems Pty Ltd



Activity elements enable you to describe the dynamics of the system from the point of view of activities and flows between them. Activities can be stereotyped as a *process* to display a business process icon.

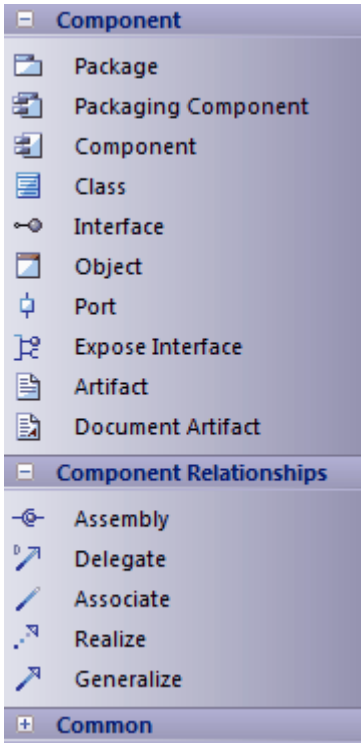
To add an element to the current diagram, click on the required icon, and drag it into position on the diagram. Set an element name and other properties as prompted.

To add a relationship, click on the required icon, then click on the start element in the diagram and drag to the end element.

For more information on these diagram, connector and element types, see the *UML Dictionary.*

7.13 Component Group

The Component group enables you to model the physical components of your system in a Component diagram. A component is a piece of hardware or software that makes up the system; for example, a DLL or Web Server are Components that might be deployed on a Windows 2000 Server (Node). See the *Deployment Diagram* topic in the *UML Dictionary* for an example of this.



The Component group contains elements related to the actual building of the system: the components that make up the system (such as ActiveX DLL's or Java beans), the Interfaces they expose and the dependencies between those elements.

To add an element to the current diagram, click on the required icon and drag it into position on the diagram. Set an element name and other properties as prompted.

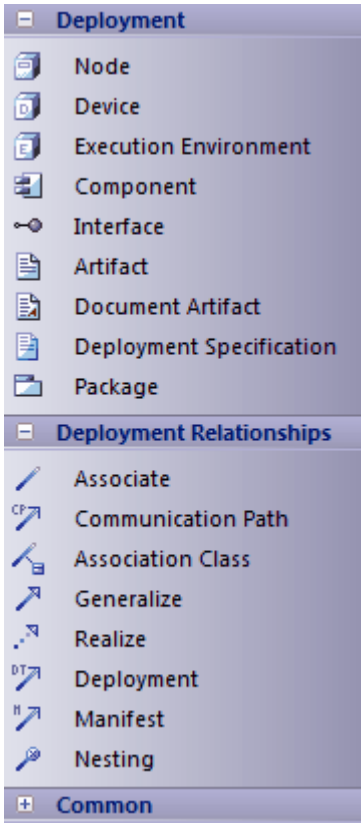
To add a relationship, click on the required icon, then click on the start element in the diagram and drag to the end element.

For more information on these diagram, connector and element types, see the *UML Dictionary.*

7.14 Deployment Group

The Deployment group enables you to model the physical components and deployment structure of your system in a Deployment diagram. A *Component* is a piece of hardware or software that makes up the system, and a *Node* is a physical platform on which the component is to exist. For example, DLLs or Web Servers are Components that could be deployed on a Windows 2000 Server (Node). See the *Deployment Diagram* topic in the *UML Dictionary* for an example of this.

© 1998-2010 Sparx Systems Pty Ltd



The Deployment group contains elements related to the actual building of the system; the components that make up the system (such as ActiveX DLLs or Java beans) and the nodes those components run on, including the physical connections between nodes.

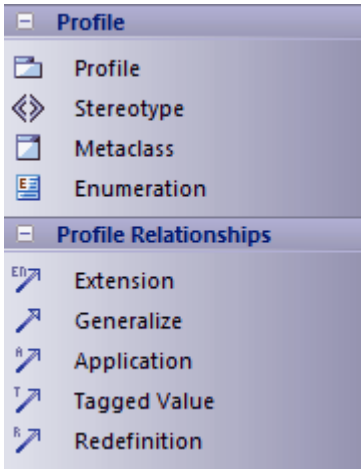
To add an element to the current diagram, click on the required icon, and drag it into position on the diagram. Set an element name and other properties as prompted.

To add a relationship, click on the required icon, then click on the start element in the diagram and drag to the end element.

For more information on these diagram, connector and element types, see the *UML Dictionary.*

7.15 Profile Group

The Profile group contains some extended UML elements and connectors that can be used to create and modify Profiles, for rapidly creating stereotypes and Tagged Values that can be applied to structures such as elements, attributes, methods and connectors. (For more information on Profiles, see *Extending UML With Enterprise Architect*.)



A *Profile* is used to provide a generic extension mechanism for building UML models in particular domains. They are based on additional Stereotypes and Tagged Values that are applied to structures such as elements, attributes, methods, connectors and connector ends.

A *Stereotype* provides a mechanism for varying the behavior and type of a model element.

A *Metaclass* is used to create a Class whose instances are Classes; a metaclass is typically used to construct metamodels.

An *Enumeration* creates a Class stereotyped as enumeration, which is used to provide a list of named values as the range of a particular type.

An *Extension* relationship shows that a stereotype extends one or more metaclasses. All stereotypes must extend either one or more Metaclasses, or another stereotype that extends a stereotype (that itself extends a stereotype, and so on).

A *Generalize* relationship shows that one stereotype specializes a more general stereotype. The more general stereotype must still extend a metaclass.

A *Tagged Value* relationship defines a reference-type (that is, RefGUID) Tagged Value owned by the source stereotype. The Tagged Value is named for the target role of this association, and is limited to referencing elements with the stereotype by the association target element.

The *Application* and *Redefinition* relationships are deprecated.

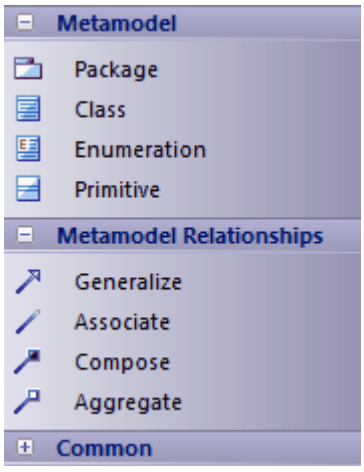
To add an element to the current diagram, click on the required icon, and drag it into position on the diagram. Set an element name and other properties as prompted.

To add a relationship, click on the required icon, then click on the start element in the diagram and drag to the end element.

For more information on these diagram, connector and element types, see the *UML Dictionary.*

7.16 Metamodel Group

The Metamodel group enables you to create metamodel diagrams with support for MOF diagrams (see *UML Model Management*).



A *Package* is a namespace as well as an element that can be contained in other package's namespaces.

A *Class* is a representation of objects, that reflects their structure and behavior within the system.

An *Enumeration* is a Class with an enumeration stereotype.

A *Primitive* supports the MOF specification (deprecated - use the UML Primitive in the Class 79 group).

To add an element to the current diagram, click on the required icon and drag it into position on the diagram. Set an element name and other properties as prompted.

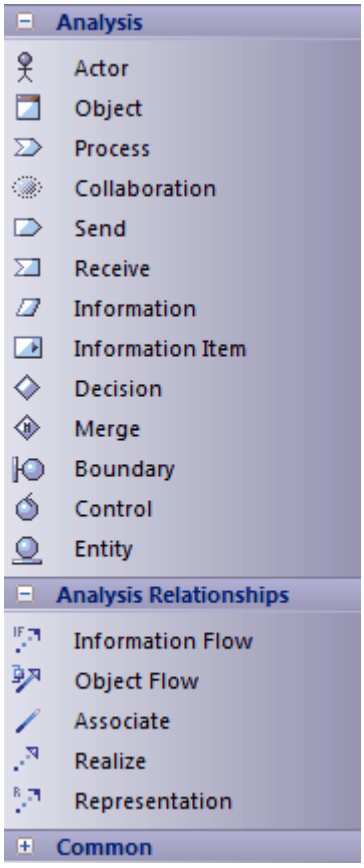
To add a relationship, click on the required icon, then click on the start element in the diagram and drag to the end element.

For more information on these connector and element types, see the *UML Dictionary.*

© 1998-2010 Sparx Systems Pty Ltd

7.17 Analysis Group

Analysis-type elements are used early in modeling to capture business processes, activities and general domain information. They are generally used in Analysis diagrams.



The elements and relationships in the Analysis group are used for early modeling of business processes, activities and collaborations. You can use stereotyped activities to model business processes, or stereotyped elements to capture standard UML business process modeling extensions such as worker, case worker, entity, and controller.

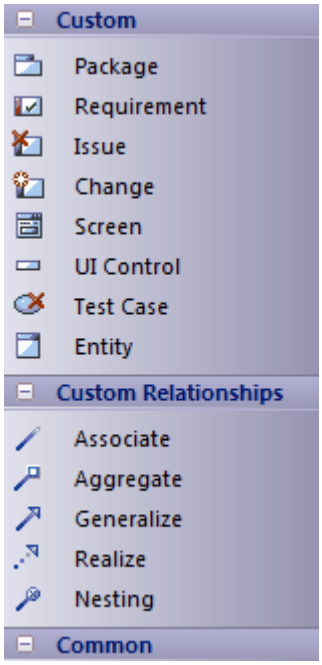
To add an element to the current diagram, click on the required icon and drag it into position on the diagram. Set an element name and other properties as prompted.

To add a relationship, click on the required icon, click on the start element in the diagram and drag to the end element.

For more information on these diagram, connector and element types, see the *UML Dictionary*.

7.18 Custom Group

The Custom group contains a few extended UML elements that might be of use in modeling or designing your system in a Custom diagram.



A *Package* is a namespace as well as an element that can be contained in other package's namespaces.

A *Requirement* is a custom element used to capture requirements outside of standard UML elements. A Requirement expresses required system behavior that can cross several Use Cases. You can connect Requirements to other elements using the *Realize* connector to express the implementation of a requirement and hence the traceability from user requirements to what is being built. (See *UML Model Management*.)

An *Issue* element is a structured comment that contains information about defects and issues relating to the system/model (see the *Defects (Issues)* topic in *Project Management with Enterprise Architect*). Affected elements are connected by Trace connectors.

A *Change* element is a structured comment that contains information about changes requested to the system/model (see the *Changes* topic in *Project Management with Enterprise Architect*). Affected elements are connected by Trace connectors.

A *Screen* provides a stereotyped Class element that displays a GUI type screen; this can be used to express application GUI elements and flows between them.

A *UI control* likewise can be used to express GUI controls.

A *Test Case* element defines what must be set up in order to test a particular feature (see the *Test Cases Window* topic in *Project Management with Enterprise Architect*). It enables you to define a set of tests once for a number of elements, and provides greater visibility for tests.

An *Entity* is a stereotyped element that represents any general thing not captured by the element or Class type elements (for example a trading partner). Use of this element is **deprecated**: it was originally intended to take the role now occupied by a Table element.

To add an element to the current diagram, click on the required icon and drag it into position on the diagram. Set an element name and other properties as prompted.

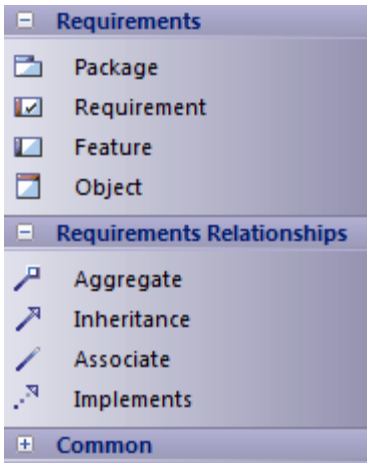
To add a relationship, click on the required icon, then click on the start element in the diagram and drag to the end element.

For more information on these diagram, connector and element types, see the *UML Dictionary.*

© 1998-2010 Sparx Systems Pty Ltd

7.19 Requirement Group

As an analysis step, often it is desirable to capture simple system *requirements*. These are eventually realized by Use Cases.



A *Package* is a namespace as well as an element that can be contained in other package's namespaces.

Specify the *Requirement* of a system. Note that there are a few different requirement types, as listed below.

- Display
- Functional
- Performance
- Printing
- Report
- Testing
- Validate.

A *Feature* is a small client-valued function expressed as a requirement. Features are the primary requirements-gathering artifact of the *Feature-Driven Design* (FDD) methodology.

An *Object* is an instance of a Class.

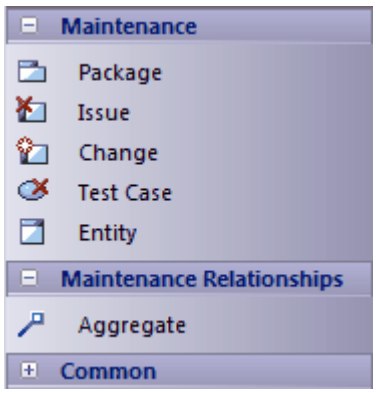
To add an element to the current diagram, click on the required icon, and drag it into position on the diagram. Set an element name and other properties as prompted.

To add a relationship, click on the required icon, then click on the start element in the diagram and drag to the end element.

For more information on these diagram, connector and element types, see the *UML Dictionary.*

7.20 Maintenance Group

The Maintenance elements are defects, changes, issues and tasks.



A *Package* is a namespace as well as an element that can be contained in other package's namespaces.

An *Issue* element is a structured comment that contains information about defects and issues relating to the system/model. Affected elements are connected by Trace connectors.

A *Change* element is a structured comment that contains information about changes requested to the system/model. Affected elements are connected by Trace connectors.

A *Test Case* describes what must be set up in order to test a particular feature.

An *Entity* is a stereotyped element that represents any general thing not captured by the element or Class type elements (for example a trading partner). Use of this element is **deprecated**: it was originally intended to take the role now occupied by a Table element.

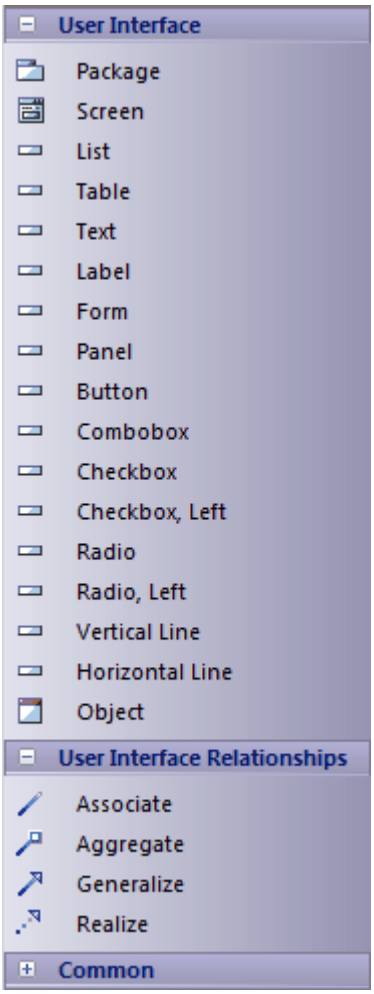
To add an element to the current diagram, click on the required icon, and drag it into position on the diagram. Set an element name and other properties as prompted.

To add a relationship, click on the required icon, then click on the start element in the diagram and drag to the end element.

For more information on these connector and element types, see the *UML Dictionary.*

7.21 User Interface Group

The User Interface group enables you to create graphical user interface diagrams.



A *Package* is a namespace as well as an element that can be contained in other packages' namespaces.

A *Screen* element represents a graphical user interface. You can place GUI elements onto the screen element.

UI Control elements are placed onto the screen element to build up a graphical user interface diagram. There are different stereotyped elements such as buttons and combo boxes.

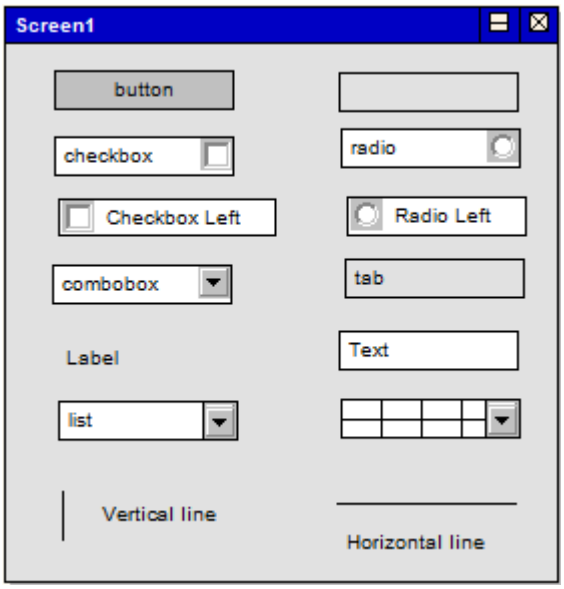
An *Object* is an instance of a Class.

To add an element to the current diagram, click on the required icon, and drag it into position on the diagram. Set an element name and other properties as prompted.

To add a relationship, click on the required icon, then click on the start element in the diagram and drag to the end element.

For more information on these connector and element types, see the *UML Dictionary.*

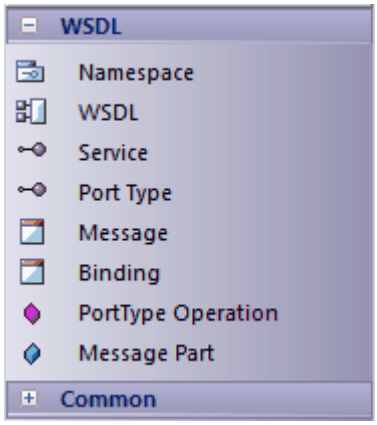
The following diagram illustrates the GUI elements from the Toolbox, within a Screen element.



© 1998-2010 Sparx Systems Pty Ltd

7.22 WSDL Group

The WSDL group gives you the ability to rapidly model and automatically generate W3C Web Service Definition Language (WSDL) documents.



A *Namespace* represents the top-level container for the WSDL model. Drag this element onto an open diagram to create the necessary model structure for WSDL documents.

A physical WSDL document is represented as a UML component. Its interfaces represent the *WSDL services*.

A WSDL *Port Type* is modeled as a UML interface. Its *Port Type Operations* are realized by *Binding* elements. Each of the operation parameters is derived from the Message elements defined in the *Messages* package.

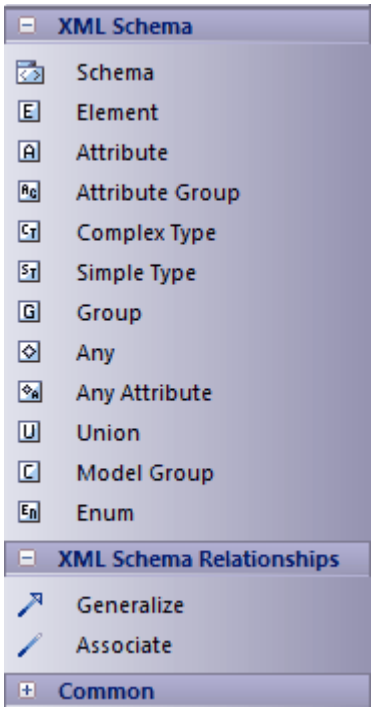
To add an element to the current diagram, click on the required icon and drag it into position on the diagram. Set an element name and other properties as prompted.

To add a relationship, click on the required icon, click on the start element in the diagram and drag to the end element.

For more information on these element types, see *Code Engineering Using UML Models.*

7.23 XML Schema Group

The XML Schema group provides the ability to model and automatically generate W3C XSD schema files. This group implements the constructs provided by the UML profile for XML Schema.



A *Schema* corresponds to a UML package, which contains the type and element definitions for a particular *targetNamespace*. Drag this item onto an open diagram to create the package to contain your schema model elements. The package is stereotyped as *XSDschema*.

Open the logical diagram created under the XSDschema package and add additional schema elements as required.

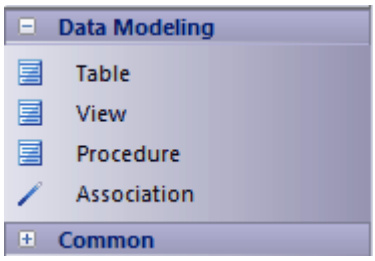
To add an element to the current diagram, click on the required icon and drag it into position on the diagram. Set the name and other properties as prompted.

To add a relationship, click on the required icon, then click on the start element in the diagram and drag to the end element.

For more information on these connector and element types, see *Code Engineering Using UML Models.*

7.24 Data Modeling Group

This group is used for database modeling and database design, in conjunction with the *UML Data Modeling Profile* (see *Code Engineering Using UML Models)*.



The *Table* element defines a table on the data model.

The *View* element represents database views in the data model.

The *Procedure* element represents stored procedures in the data model.

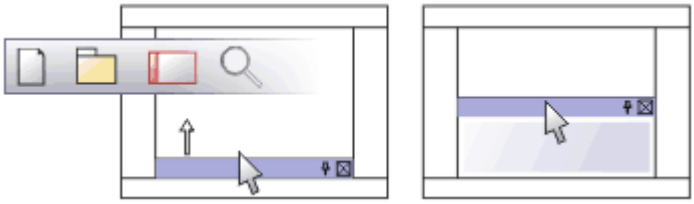
To add an element to the current diagram, click on the required icon and drag it into position on the diagram. Set an element name and other properties as prompted.

To add a relationship, click on the required icon, click on the start element in the diagram and drag to the end element.

For more information on these connector and element types, see the *UML Dictionary.*

© 1998-2010 Sparx Systems Pty Ltd

8 Workspace Toolbars

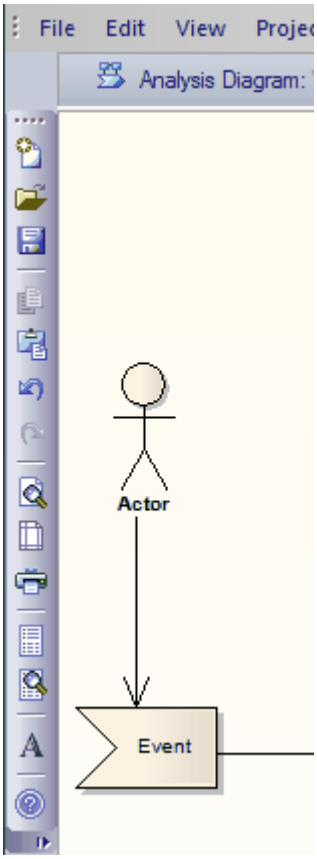


Enterprise Architect provides you with a selection of toolbars that you can drag and dock within the application frame. These toolbars provide convenient shortcuts to common tasks. You can also float toolbars over the application by dragging them off the application toolbar section; this is useful when you are using a certain set of functions a lot in a particular area.

You can customize toolbars by deleting and reordering the default button set. See Customize Commands 57 for more information. You can customize which toolbars are active by right-clicking on the toolbar background and selecting the required items at the end of the context menu.

Note:

You can dock toolbars to the edge of the Enterprise Architect workspace by dragging them by the title bar and placing them against the appropriate edge. The example below shows the Default Tools toolbar docked to the left side of the workspace:



The toolbars available include:

- Default Tools Toolbar 95
- Project Toolbar 95
- Code Generation Toolbar 96
- UML Elements Toolbar 97
- Diagram Toolbar 98
- Current Element Toolbar 98

- Current Connector Toolbar 99
- Format Toolbar 99
- Workspace Layouts 100
- Status Bar 103
- Rich Text Notes Toolbar 104

Each toolbar has a drop-down arrow at the right-hand end, , which can be enabled or hidden 43. If you click on this drop-down arrow, the **Add or Remove Buttons** option displays. Select this option to show a context menu listing the toolbars that are currently displayed, and an option to customize 56 both your own toolbars and the system-provided toolbars.

You can select one of the toolbars identified on the context menu to list the icons available through that toolbar. Click on the icons as necessary to hide or show them in the toolbar.

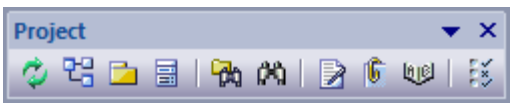
8.1 Default Tools Toolbar

The Default Tools toolbar provides quick access to the following functions (in order):

- New project **[Ctrl]+[N]**
- Open a project **[Ctrl]+[O]** - click on the folder icon to display the Open Project dialog (see *UML Model Management)*, which enables you to open files or connect to a server, or click on the drop-down arrow to display a list of recently-opened projects and select one of those
- Save current diagram **[Ctrl]+[S]**
- Cut selected element(s) from diagram **[Ctrl]+[X]** (the element is not removed from the source diagram until it is pasted from the clipboard into another diagram)
- Copy to Enterprise Architect clipboard **[Ctrl]+[Space]**
- Paste from Enterprise Architect clipboard as instance **[Shift]+[Insert]**
- Undo last action **[Ctrl]+[Z]**
- Redo last undone action **[Ctrl]+[Y]**
- Print Preview (for generated documents and diagrams)
- Page setup
- Print **[Ctrl]+[O]**
- Show Element List for currently-selected package or diagram **[Ctrl]+[Alt]+[R]**
- Open Model Search **[Ctrl]+[Alt]+[A]**
- Select the layout of docked windows, toolbars and the Enterprise Architect UML Toolbox (**<default>** is Enterprise Architect, other options display for any MDG Technologies you have enabled - see *Extending UML With Enterprise Architect*)
- Help **[F1]**.

You can move this toolbar to any dockable position and it retains that position in subsequent sessions. You can hide or show the toolbar by clicking on the **View | Toolbars | Default Tools** menu option.

8.2 Project Toolbar



The Project toolbar provides quick access to the following functions (in order):

- Reload current project **[Ctrl]+[Shift]+[F11]** (see *Version Control Within UML Models Using Enterprise Architect*)
- New diagram
- New package **[Ctrl]+[W]**

© 1998-2010 Sparx Systems Pty Ltd

- New element **[Ctrl]+[M]**
- Search Project Browser window **[Ctrl]+[Shift]+[F]**
- Search entire project, using Model Search 123 **[Ctrl]+[F]**
- New RTF document **[F8]**
- Project issues
- Project glossary
- Options (preferences) **[Ctrl]+[F9]**

You can move this toolbar to any dockable position and it retains that position in subsequent sessions. You can hide or show the toolbar by clicking on the **View | Toolbars | Project** menu option.

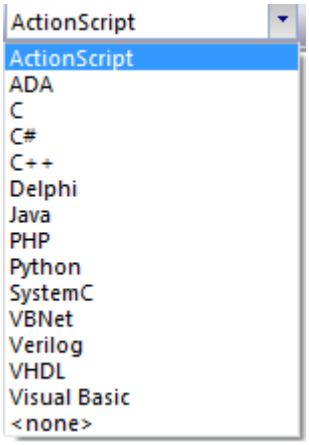
8.3 Code Generation Toolbar

The Code Generation toolbar provides quick access to the following functions (in order):

- Set the default language
- Set the default database
- Import Classes and Interfaces from source files (see menu below)
- Generate code for a single selected Class **[F11]**
- Batch generate code for one or more selected Classes **[Shift]+[F11]**
- Synchronize selected Classes with source code **[F7]**
- View code 145 in default editor **[F12]**.

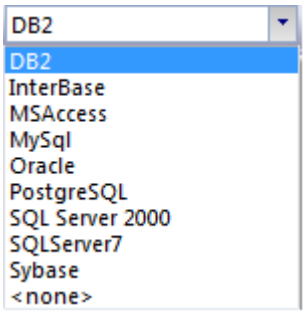
Set Default Code Language

To set the default language for the model click on the **Default Language** drop-down arrow and select the appropriate language.



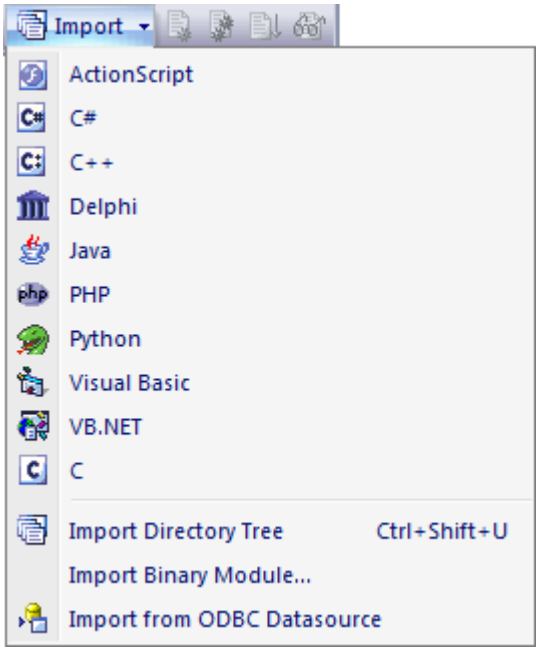
Set Default Database

To set the default database type for modeling click on the **Default Database** drop-down arrow and select the appropriate database type.



Import Code

To select a language for code generation, click on the drop-down arrow for the **Import** button.



You can move this toolbar to any dockable position and it retains that position in subsequent sessions. You can hide or show the toolbar by clicking on the **View | Toolbars | Code Generation** menu option.

8.4 UML Elements Toolbar

The UML Elements toolbar provides quick access to the following functions (in order):

- Insert new element - displays a list of elements matching the content of the current Toolbox pages, with an **Other** option to list other elements (see *UML Modeling with Enterprise Architect – UML Modeling Tool*)
- Insert new System Boundary element (see the *UML Dictionary*)
- Insert new Note (see *UML Modeling with Enterprise Architect – UML Modeling Tool*)
- Insert new Text element (see *UML Modeling with Enterprise Architect – UML Modeling Tool*)
- Insert new diagram note (see *UML Modeling with Enterprise Architect – UML Modeling Tool*)
- Insert diagram Legend (see *UML Modeling with Enterprise Architect – UML Modeling Tool*)
- Insert new hyperlink (see the *UML Dictionary*)
- Insert new note link (see the *UML Dictionary*).

You can move this toolbar to any dockable position and it retains that position in subsequent sessions. You

© 1998-2010 Sparx Systems Pty Ltd

can hide or show the toolbar by clicking on the **View | Toolbars | UML Elements** menu option.

The specific elements and the Notelink connector are also available in the Common 77 page of the Enterprise Architect UML Toolbox.

8.5 Diagram Toolbar

The Diagram toolbar provides quick access to the following functions (in order):

- Align selected elements to the left **[Ctrl]+[Alt]+[←]**
- Align selected elements to the right **[Ctrl]+[Alt]+[→]**
- Align selected elements to the top **[Ctrl]+[Alt]+[↑]**
- Align selected elements to the bottom **[Ctrl]+[Alt]+[↓]**
- Bring selected element to top of Z order
- Move selected element to bottom of Z order
- Go to previous diagram **[Alt]+[←]**
- Go to next diagram **[Alt]+[→]**
- Go to default diagram
- Zoom In
- Zoom Out
- Zoom to fit diagram
- Zoom to fit page
- Zoom to 100%
- Auto-layout diagram (not for Behavioral diagrams) in the Digraph layout (see *UML Modeling with Enterprise Architect – UML Modeling Tool*)
- Show diagram properties **[F5]**
- Paste appearance as copied into the Painter from an element's **Appearance** context menu (see *UML Modeling with Enterprise Architect – UML Modeling Tool*)
- Delete selected element(s) **[Ctrl]+[D]**

Any actions that result in a change in diagram content and appearance (including Zoom) can be saved as changes to the diagram.

You can move this toolbar to any dockable position and it retains that position in subsequent sessions. You can hide or show the toolbar by clicking on the **View | Toolbars | Diagram** menu option.

8.6 Current Element Toolbar

The Current Element toolbar provides quick access to the following functions (in order):

- View and modify element properties **[Alt]+[Enter]**
- Set an element's parent or implement interfaces **[Ctrl]+[I]**
- View and modify Operations **[F10]**
- View and modify Attributes **[F9]**
- Specify the visibility of element features and compartments **[Ctrl]+[Shift]+[Y]**
- Specify the run state of an element (or, for Parts, property value) **[Ctrl]+[Shift]+[R]**
- View use of element in other structures such as diagrams **[Ctrl]+[U]**
- Locate the element in the Project Browser window **[Alt]+[G]**
- View the cross reference list for this element **[Ctrl]+[J]**

- Lock or unlock the current element

> **Note:**
>
> This does not apply in the Corporate, Business and Software Engineering, Systems Engineering and Ultimate editions if security is enabled. In that case, see the *Lock Model Elements* topic in *User Security in UML Models*.

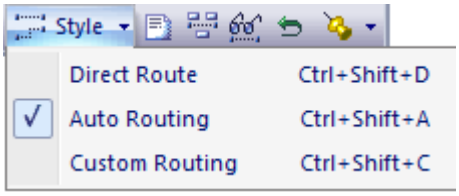
- Add a Tagged Value to the current element **[Ctrl]+[Shift]+[T]**

You can move this toolbar to any dockable position and it retains that position in subsequent sessions. You can hide or show the toolbar by clicking on the **View | Toolbars | Current Element** menu option.

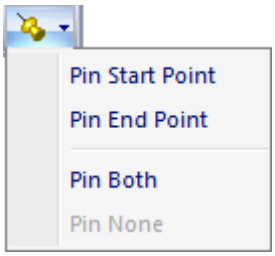
8.7 Current Connector Toolbar

The Current Connector toolbar provides quick access to the following functions (in order):

- View and modify properties for the current connector
- Set the connector line style



- Attach a note to the currently selected connector
- Set the visibility for labels of the connector
- Set the visible or hidden relations in the current diagram **[Ctrl]+[Shift]+[I]**
- Reverse the direction of the currently selected connector
- Pin the start and/or connector ends to a position on the target element (drop menu).



You can move this toolbar to any dockable position and it retains that position in subsequent sessions. You can hide or show the toolbar by clicking on the **View | Toolbars | Current Connector** menu option.

8.8 Format Toolbar

Use the Format toolbar to change the appearance of a selected element (or several selected elements) in the current diagram; this does not affect any other occurrence of the selected elements anywhere else in the model.

© 1998-2010 Sparx Systems Pty Ltd

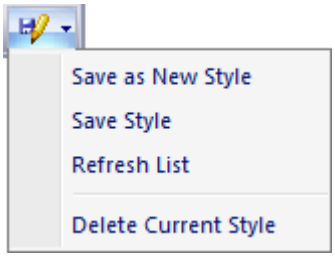
Notes:

- To set the global appearance of all elements throughout a model, use the Options dialog. Select the **Tools | Options** menu option, then select **Standard Colors** 192 and **Diagram | Appearance** 195 from the options tree.
- To override the global appearance and define a default appearance of a selected element (or several selected elements) on all diagrams on which it occurs, right-click on the element and select the **Appearance | Default Appearance** context menu option. The Default Appearance dialog displays (see *UML Modeling with Enterprise Architect – UML Modeling Tool*).

The Format toolbar provides quick access to the following functions (in order):

- Text font, style, size and effects, through the Font dialog
- Text Color (drop-down color palette)
- Fill Color (drop-down color palette)
- Border or Connector Line Color (drop-down color palette)
- Border or Connector Line Width (arrows increase/decrease between **1** and **5**)
- Apply Style to Element(s)
- Copy Style from Element
- Style list for selecting saved styles
- Save style (see below).

If you click on the drop-down arrow for the **Save Style** (pencil) button, you can select an option from the following list:



The **Fill Color** button can be used in conjunction with the **Project Custom Colors** menu options to enable users to have access to custom-defined project colors. To activate this feature select the **Tools | Options | Standard Colors** menu option and ensure that the **Show Project Custom Colors in Element Format** checkbox is selected. To define a set of custom colors see the *Get and Set Project Colors* topic in *UML Modeling with Enterprise Architect – UML Modeling Tool*.

You can move this toolbar to any dockable position and it retains that position in subsequent sessions. You can hide or show the toolbar by clicking on the **View | Toolbars | Format Tool** menu option.

8.9 Workspace Layouts

The Workspace Layouts toolbar provides a range of facilities for changing the content and layout of the Enterprise Architect workspace. You can move this toolbar to any dockable position and it retains that position in subsequent sessions. You can hide or show the toolbar by clicking on the **View | Toolbars | Workspace Layouts** menu option.

From left to right, the facilities on the toolbar are described in the following paragraphs.

Save Workspace Layout As

If you have manually created or adjusted an arrangement of windows and toolbars to suit your work requirements, you can capture that layout for future use.

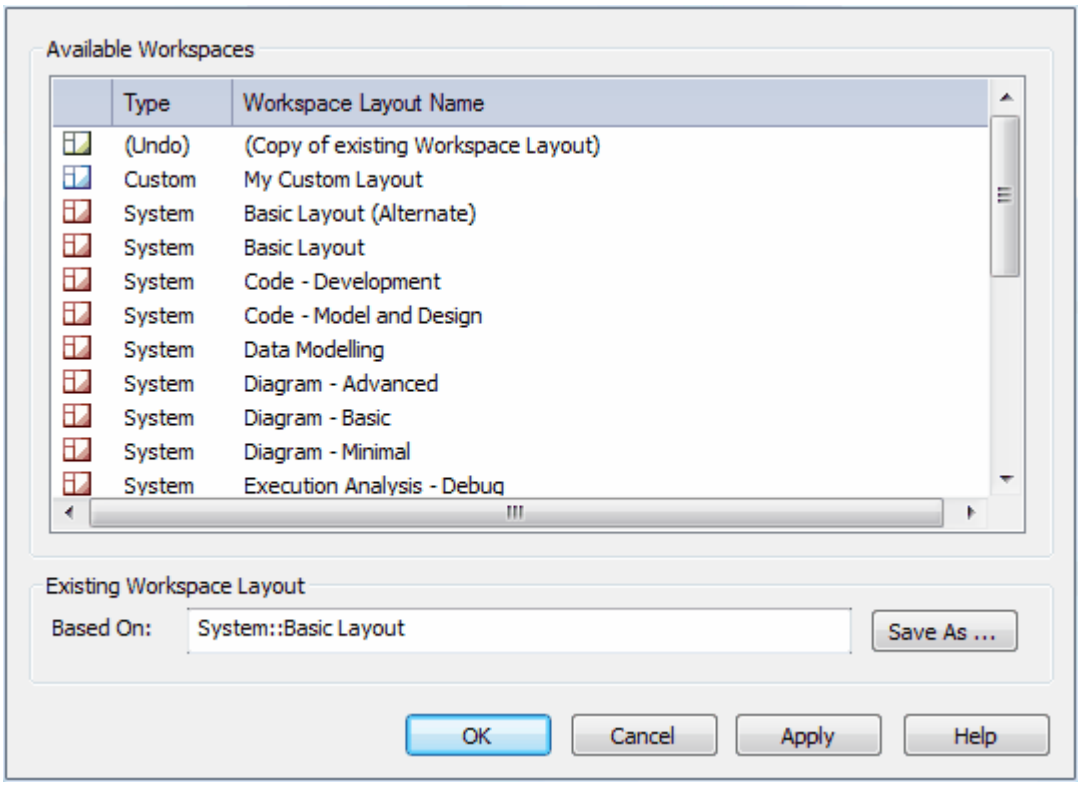
Click on the toolbar icon and, in the **Custom Workspace Layout Name** field at the bottom of the Save

Custom Workspace Layout dialog, type a name for the layout. Click on the **Save** button. The layout is added to the **Available Custom Workspace Layouts** list.

You can also select an existing workspace layout from the list and save the new layout under the existing name.

Manage Workspace Layouts

The **Manage Workspace Layouts** icon displays the Workspace Layout dialog, which lists the currently-available user-defined and system layouts.



In the Existing Workspace Layout panel at the bottom of the dialog, the **Based On:** field identifies the defined layout that the current workspace layout was derived from - you might have moved or closed windows since applying that layout. The highlighted *(Copy of existing Workspace Layout)* at the top of the Workspace Layout dialog is a capture of the workspace layout immediately before you opened the dialog.

Change Layout

You can now change the layout in the Existing Workspace Layout panel to:

- The original layout (as identified by the **Based On**: field), discarding any changes you might have made
- The *Copy of existing Workspace Layout*, preparatory to saving the changes in a new named layout
- One of the other named layouts.

To change the layout in use, either:

- Double-click on the required layout name
- Click on the layout name and click on the **Apply** button or **OK** button, or
- Right-click on the layout name and select the **Apply** context menu option.

When the layout in use changes, the layout name in the toolbar **Workplace Layout Selection** field also changes.

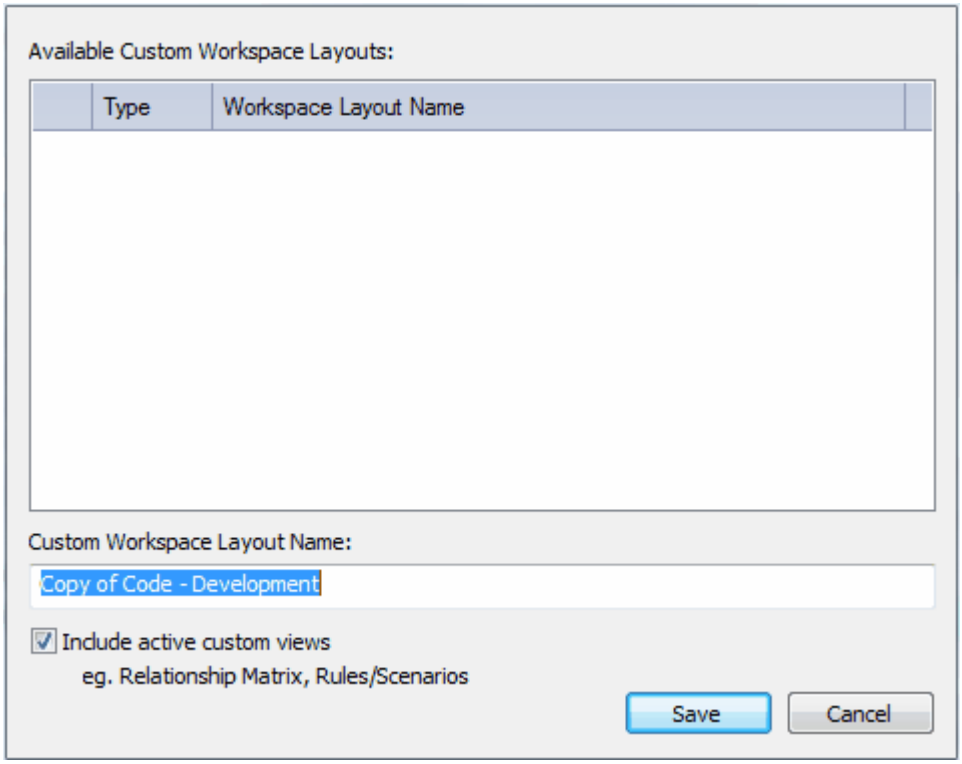
Copy Layout

To copy a layout (such as the one at the top of the list), either:

- Change the layout in use to the required layout (as above) and click on the **Save As** button, or
- Right-click on the layout name and select the **Save As** context menu option.

© 1998-2010 Sparx Systems Pty Ltd

The Save Custom Workspace Layout dialog displays.



In the **Custom Workspace Layout Name** field, type a name for the layout. Again, by selecting an existing name you can change an existing layout to something different. Click on the **Save** button.

If you already have tailored windows or views that you want to include in your selected layout, select the **Include active custom views** checkbox.

Delete Layout

To delete a workspace layout, right-click on the layout name and select the **Delete** context menu option. Enterprise Architect prompts you to confirm or cancel the deletion.

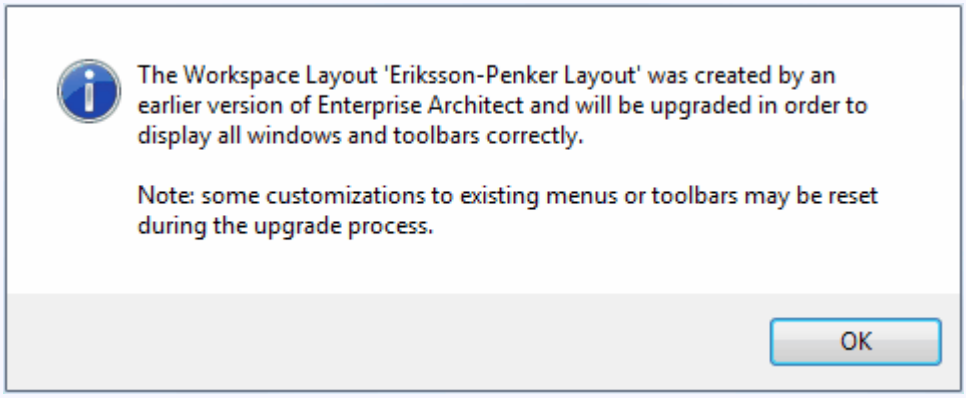
Workspace Layout Selection

Enterprise Architect provides a number of layouts of windows and toolbars to suit particular areas of work, such as Requirements Management, Code Engineering and Debugging. As described above, you can also add your own layouts to the drop-down list; these custom layout names have a preceding asterisk in the drop-down list for the field (the system-provided layouts are not marked with an asterisk).

To switch to another layout, click on the drop-down arrow and click on the required layout.

Note:

When you upgrade your system to a new edition of Enterprise Architect, the new edition might contain window or toolbar layout changes made by Sparx Systems. These changes might impact your previously-customized workspace layouts. In such cases, when you select each of your customized layouts in the **Selection** field, the following prompt displays:



Click on the **OK** button to ensure that your customized layout contains the system upgrades.

Views

Clicking on the drop-down arrow for the **Views** icon lists options for displaying various views of information on model content, such as the Element List 108, Model Search 121 and Relationship Matrix (see *UML Modeling with Enterprise Architect – UML Modeling Tool)*. Click on the appropriate option to display the required view screen.

Windows

Clicking on the drop-down arrow for the **Windows** icon lists options for opening each of the Enterprise Architect windows (as on the **View** 41 menu options). Click on the appropriate option to open the required window, or to transfer control to the window if it is already open.

Toolbars

Clicking on the drop-down arrow for the **Toolbars** icon lists options for opening or hiding each of the nine Enterprise Architect main toolbars 94 and the diagram Status Bar 103. Click on the appropriate option to hide or display the required toolbar.

Full Screen

Click on this icon to switch the Enterprise Architect display to *Full Screen* 69 mode. A small dialog displays to enable you to switch back to normal mode. Alternatively, click on the **Window | Full Screen** menu option.

8.10 Status Bar

The Status bar displays at the bottom of the Enterprise Architect workspace. It provides feedback on current operations and other status information, and enables you to enlarge the scale of the diagram.

In particular the Status bar:

- Identifies the type and name of the currently selected element in a diagram (or the status of a Model Search)
- Identifies the name of the currently-selected feature, if one is selected
- Provides the current coordinates of the top left corner of the selected element, and its width and height

© 1998-2010 Sparx Systems Pty Ltd

- Provides a zoom slider that enables you to enlarge the scale of the current diagram by up to 50%

Note:

This facility has no impact on other users who might view the diagram. It has the same function as the **Scale view by** field on the Diagram Appearance 195 page of the Options dialog; changes in the 'zoomed' display scale of a diagram update this field and are applied to any other diagrams that you open.

This also has no impact any other diagram Zoom facility in Enterprise Architect.

- Indicates the status of **[Caps Lock]**, **[Num Lock]**, **[ScrLk]** (scroll lock) and the WAN Optimizer (bold indicates 'in use', pale indicates 'off')
- Indicates, by the presence of a triangle in the bottom right corner, that the screen is not maximized; you can drag the screen corner to increase the size of the window.

If you right-click on the Status bar, a context menu displays that enables you to hide or show the element name, element coordinates, zoom slider or status indicators.

You can hide or show the Status bar from the **View | Toolbars | Status Bar** menu option, but you cannot dock it in any other position.

8.11 Rich Text Notes Toolbar

Although it is not an independent toolbar that you can pin to the screen top or sides, or float in your work area, the Rich Text Notes toolbar appears in many places across Enterprise Architect in the **Notes** and **Description** fields of:

- The element Properties dialog:
  - General tab
  - Requirements tab
  - Scenario tab
  - Hyperlink Notes
- The Diagram Properties dialog
- The Connector Properties dialog
- The Message Properties dialog
- The Operations and Attributes Properties dialogs
- The Testing Window descriptions
- The Notes window
- The Rules and Scenarios Window for:
  - Requirements
  - Linked Requirements
  - Scenarios.

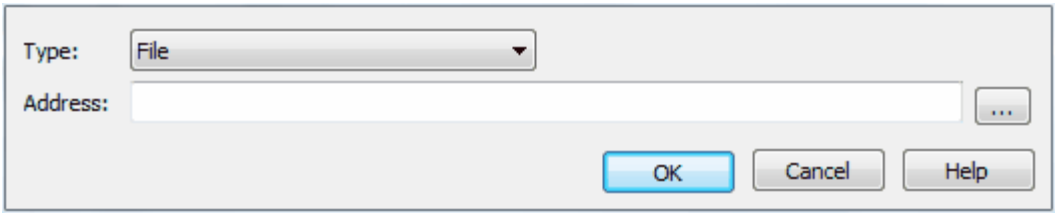
Notes:

- If the toolbar is displayed but grayed out, the text field is read-only and cannot be edited. Other **Description** or **Notes** fields in Enterprise Architect might not have the toolbar, in which case the Rich Text Notes facility is not available for those fields.
- For any Notes text that is displayed on a diagram, you must select the **Render Formatted Notes** checkbox on the Feature Visibility dialog in order to reproduce the formatting (see *UML Modeling with Enterprise Architect – UML Modeling Tool*).
- You can create a Project Glossary term and definition from text in any field that has the Rich Text Notes toolbar. See The Notes Window 160.

The options of this toolbar operate on selected text and any new text continuing from the formatting. The options (with some keyboard shortcuts) are, from left to right:

- Make text bold **[Ctrl]+[B]**
- Make text italic **[Ctrl]+[I]**

- Underline text **[Ctrl]+[U]**
- Change the font color of the text
- Insert list bullet points **[Ctrl]+[.]** *(full stop)*
- Insert list numbering **[Ctrl]+[1]**
- Make text superscript
- Make text subscript
- Insert a hyperlink - this displays the following Hyperlink Details dialog, on which you specify the type of hyperlink and type in or browse for the location of the target of the hyperlink.



Additional keyboard shortcuts:

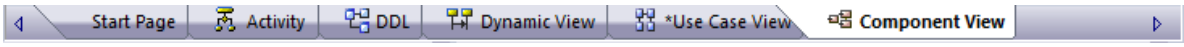
- Undo changes **[Ctrl]+[Z]**
- Redo changes **[Ctrl]+[Y]** or **[Ctrl]+[Shift]+[Z]**
- Copy **[Ctrl]+[C]**
- Paste **[Ctrl]+[V]**
- Cut **[Ctrl]+[X]**

Any Note text appearing in the element Note *compartments* in diagrams is not formatted.

© 1998-2010 Sparx Systems Pty Ltd

9 Diagram Tabs

Diagram Tabs are located at either the bottom or the top of the diagram area, above the status bar. The default location is at the bottom of the diagram area; for details of how to place the diagram tabs at the top, see the *Configure Local Options | General* 190 topic. Each time you open a diagram, the diagram name and diagram type symbol are shown in the tab for easy identification and access.

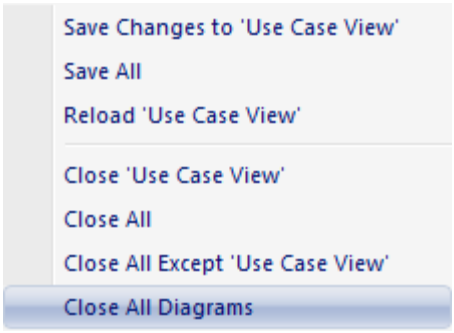


Notice that the Component View tab is white with bold text; this means that the current diagram is the *Component View* diagram.

Also notice that the Use Case View tab has an asterisk. This means that there are unsaved changes in the *Use Case View* diagram. To save the changes see below.

The Diagram Tabs Menu

To access the **Diagram Tabs** context menu, right-click on an appropriate tab. In the example below, the *Use Case View tab was right-clicked.



The table below explains each menu option.

Menu Option	Use to
Save Changes to '<tab name>'	Save the unsaved changes made to the diagram.
Save All	Save the model.
Reload '<tab name>'	1. Reopen the diagram without the unsaved changes; that is, revert to the state before any changes were made. 2. Refresh the diagram from the repository, to show any changes made by other users in a shared model (see *Version Control Within UML Models Using Enterprise Architect).*
Close '<tab name>'	Close the diagram; Enterprise Architect prompts you to save changes to the diagram.
Close All	Close all open diagrams; Enterprise Architect prompts you to save any diagrams with unsaved changes.
Close All Except '<tab name>'	Close all diagrams except for '<tab name>'; Enterprise Architect prompts you to save any diagrams with unsaved changes.
Close all <view type>	(Where several views of the same type can be opened at the same time, such as diagrams, RTF documents, or text editors.) Close all views of the same type as the selected tab, leaving views of other types still open.

10 View Options

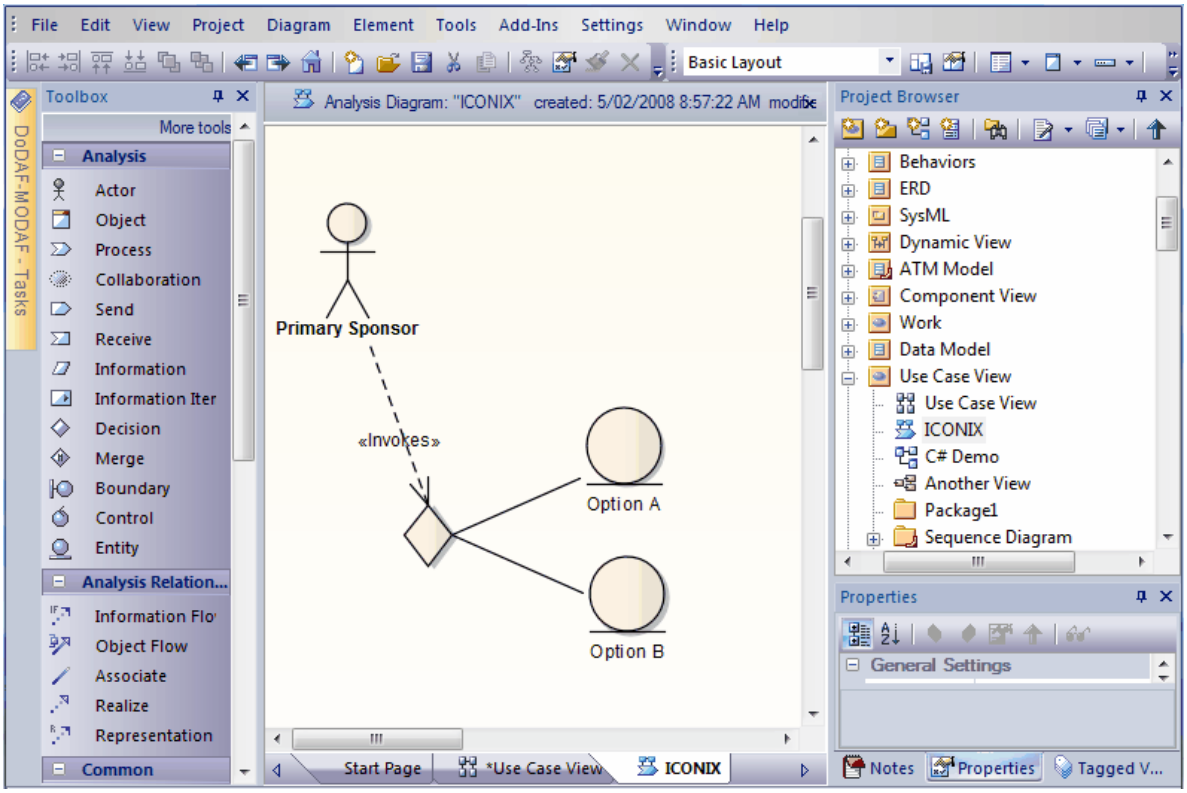
Models in Enterprise Architect are viewed in different ways in the application workspace, either in the Diagram View 107 or the Element List 108. You can also develop tailored views of your model or project in the Model Views 113 window.

See Also

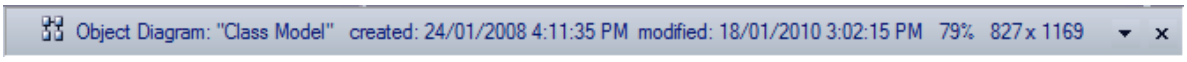
- Relationship Matrix (see *UML Modeling with Enterprise Architect – UML Modeling Tool*)
- Model Search 121

10.1 Diagram View

The Diagram View is the main workspace window that enables you to create and display diagrams. You can open many diagrams, but you can view only one at a time. You open the first diagram by double-clicking on the diagram name in the Project Browser. You can then open further diagrams in the same way, or from within an open diagram by clicking on hyperlinks or elements that contain other diagrams.



Across the top of a diagram is the diagram caption bar, containing the diagram statistics.



This caption bar also enables you to switch or close the diagram. The caption bar provides the:

- Icon and text label for the diagram type
- Diagram name

© 1998-2010 Sparx Systems Pty Ltd

- Date and time the diagram was created
- Date and time the diagram was last modified
- The current magnification (zoom) of the diagram
- The diagram page size, in pixels
- A drop-down arrow that lists the currently-open diagrams; click on a diagram name to switch to that diagram
- The Window 'close cross'; click on this to close the displayed diagram.

Use the Diagram View to build model relationships and elements. Within the diagram, you can create new elements, drag in existing elements and generally organize the elements and relationships. Most work is carried out on elements in the Diagram View, so understanding how it works and how to manipulate elements is essential. Use the example project supplied with Enterprise Architect to explore the capabilities and behavior of the Diagram View.

Tip:

You can also use the Element List 108 to manipulate elements.

Typical diagram activities include:

- Add new elements 71 to the diagram using the Enterprise Architect UML Toolbox
- Add existing elements to the diagram by dragging them from the Project Browser
- Add connectors 71 between elements using connectors from the Enterprise Architect UML Toolbox
- Copy elements in a diagram to link or copy elsewhere
- Zoom a diagram to different magnifications
- Use the Diagram toolbar forward and back 98 arrows to display the previous or next diagram (you can also click on the required diagram tab 106, or use the drop-down menu on the caption bar, described above)
- Align and resize multiple elements
- Delete elements from the diagram (but not the project)
- Double-click on the diagram background to open the diagram Properties dialog and set diagram properties
- Print and print preview 35 diagrams
- Save the diagram image to file
- Save the diagram image to the clipboard.

For details of these operations, see *UML Modeling with Enterprise Architect – UML Modeling Tool*.

10.2 Element List

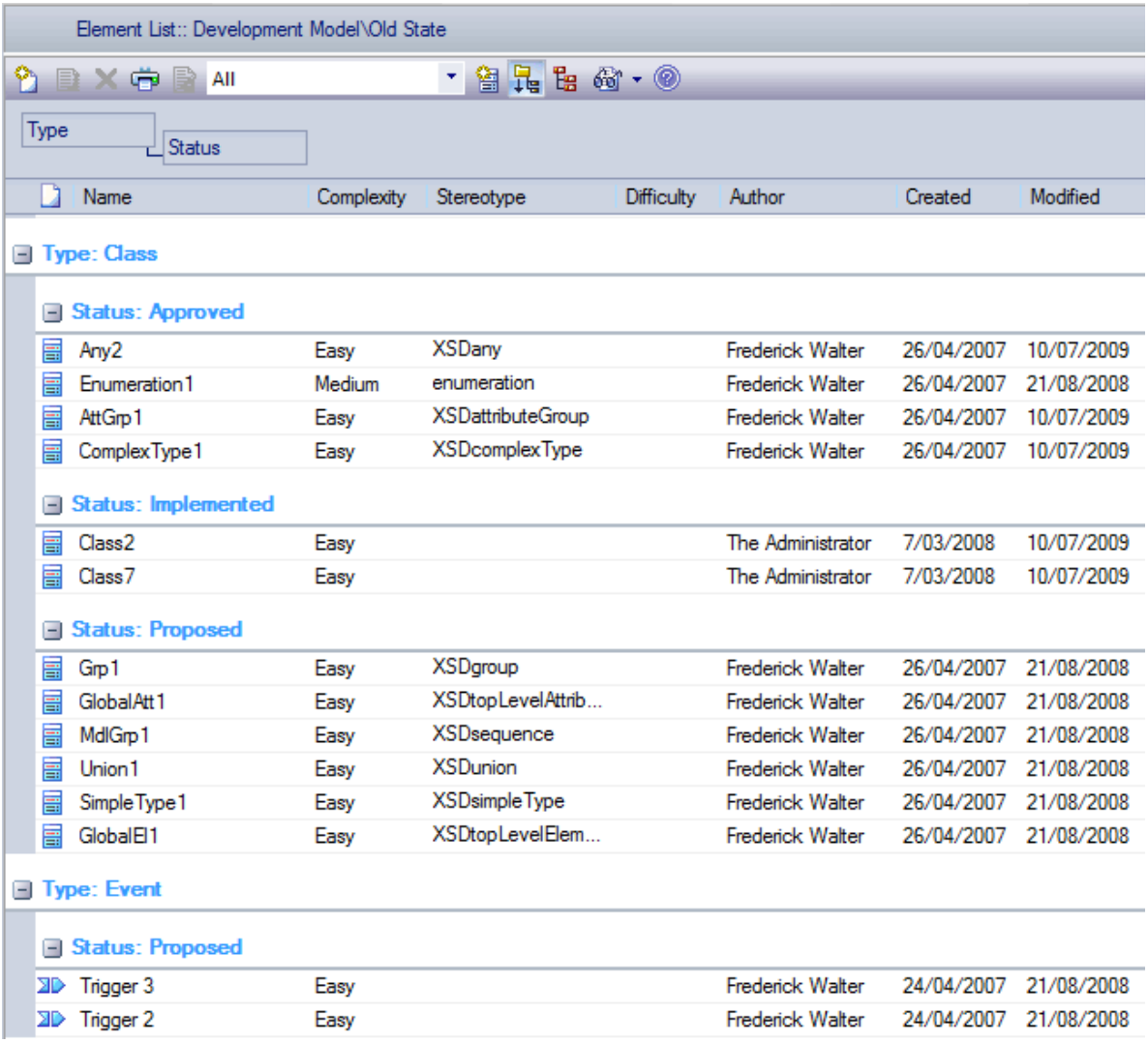
The Element List is a tabular, editable view of elements that can be displayed in the main workspace. You can use the Element List to streamline the process of creating and updating elements in a package or diagram selected from the Project Browser. This can be particularly useful for analysts to create and maintain formal requirement definitions within the model. You can also print the list or generate an RTF document 112 directly from the entries on the Element List.

To access the Element List, either:

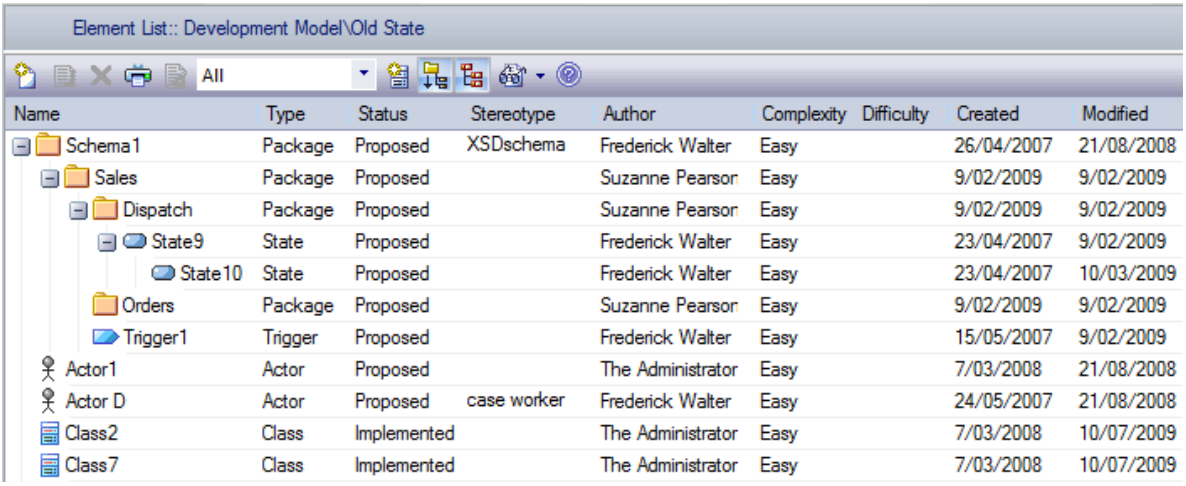
- Select a diagram or package in the Project Browser and select the **View | Element List** main menu option
- Select a diagram or package in the Project Browser and press **[Ctrl]+[Alt]+[R]**
- Right-click on a diagram or package in the Project Browser and select the **View Diagram As List** or **View Package As List** menu option
- Right-click on the background of an open diagram and select the **Switch to List View** context menu option

The Element List tab displays, showing the element information for the selected package or diagram. There are two possible formats that you can switch between using the **Show Hierarchy** button ( ) in the toolbar:

- *User-Defined* format - as shown below, where you determine how the element information is structured on the screen, using the value-grouping 111 band below the toolbar



- *Model Hierarchy* format - as shown below, where the package and element hierarchies are represented in the display.



In the Element List you can:

- Sort the items by any column value in ascending or descending order, by clicking on the column header; initially the elements are listed in numerical order (if level numbering is turned on in the Project Browser) or alphabetical order within type
- In *User Defined* format, change the filtered structure of the information in the list; see Value Grouping 111,

© 1998-2010 Sparx Systems Pty Ltd

below

- Change the sequence of columns, by dragging column headers left or right

Note:

In *Model Hierarchy* format, the **Name** column is always on the left; you cannot move any other column into that position, although you can rearrange the order of the rest of the columns. Because of this, if you group or sort information in *User Defined* format and switch to *Model Hierarchy* format your information structure is altered, and it is not restored when you switch back to *User Defined* format.

- Display the Properties dialog for an item by double-clicking on the item entry
- Select:
  - an element by clicking on it
  - a specific value by clicking twice on it (not double-clicking); either the value becomes directly editable or the Properties dialog displays in which you can edit the value
  - several individual elements by holding **[Ctrl]** as you click on them
  - a range of elements by holding **[Shift]** as you click on the first and last in the range.
- Add new items to the *package* covered by the Element List, by clicking on a listed element and pressing **[Ctrl]+[N]** or **[Insert]**, or right-clicking and selecting the **Add New** context menu option
  - in *Model Hierarchy* format, new elements are inserted in the order in which they appear in the Project Browser
  - in *User Defined* format, new items are inserted to comply with any sort order and/or grouping; if the list is not sorted or grouped, the items are added to the end.
- In *Model Hierarchy* format, you can add a child element to the selected element by pressing **[Esc]** and then **[Ctrl]+[N]**; otherwise, elements are added as siblings of the selected element

Note:

You can add child elements only when the whole row is selected, with none of the row cells or fields highlighted. Press **[Esc]** to remove selection from an individual cell.

- Automatically add elements to a *diagram* by generating the Element List on the diagram and adding elements to the list
- Delete elements from the list by selecting the item and pressing **[Ctrl]+[D]**.

Note:

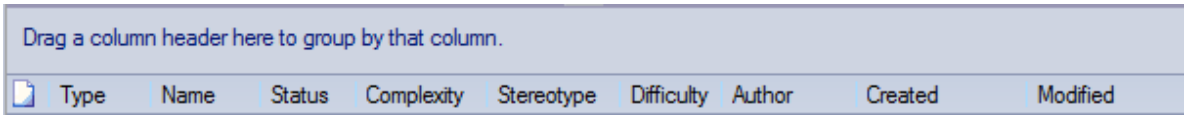
In *Model Hierarchy* format, you cannot delete a parent element until all its child elements have been removed or deleted.

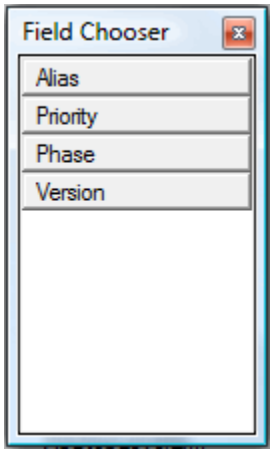
You can also include each element's notes 112 (documentation), which are shown underneath the element. You can add or edit notes by clicking on the item and pressing **[Ctrl]+[Space]**. This transfers control to the Notes window, in which you create or edit the note text.

If it is necessary to review the element's custom (advanced) properties, click on the item and press **[Ctrl] +[Enter]**. This displays the Custom Properties dialog for the element.

You can do further work on the Element List using the toolbar and context menu options 111.

The View Header





The View header defines the columns of information that are presented by the Element List, and the order in which data items are presented. By right-clicking on the header you display the **Field Chooser** context menu option, which in turn displays the Field Chooser dialog. This enables you to add or remove columns from the output. Between them, the View header and Field Chooser dialog show the full range of column headers available.

To *add* a column heading to the View header, drag it from the Field Chooser dialog onto the header, to the position you want the column of data to display. When you have selected the column headings you require, click on the red cross in the top right corner of the Field Chooser dialog to close it. If you want to *remove* a column from the output, drag the column heading to below the View header.

You can also change the sequence of columns, by dragging column headers left or right.

Value Grouping

You can organize the reported data according to the value of one or more of the column categories. As in the illustration at the start of this topic, you might organize the data by *Type*, and within each Type by *Name*. If you then click on any of the other column headings, the data within this grouping is further sorted with the values of the selected column (for example, *Created*) in ascending or descending order.

To set up the value grouping, drag the column heading representing the primary grouping (such as *Type*) onto the **Drag a column header here to group by that column** field. Then drag the column heading for the next level of grouping (such as *Name*) to the right of the first heading. The two heading titles display as connected blocks, as shown below.

You can, if required, add further levels of grouping by dragging other column headings onto the hierarchy (such as *Status*), and restructure the order by dragging existing or additional headings into the level you want them to hold. For example, you could make *Type* the secondary grouping by dragging it to the right of *Name*, or drop *Status* between *Type* and *Name*.

To remove a grouping level, drag the appropriate column heading out of the sequence and below the View header. Any subordinate groupings move up a level.

10.2.1 Element List Options

Toolbar Options

You can also add to or influence what information is displayed on the Element List by clicking on the following icons in the toolbar to:

- - add a new element to the diagram and/or package (**[Ctrl]+[N]**) (see *UML Modeling with Enterprise Architect – UML Modeling Tool*)
- - display the Notes window, to add or edit notes for the selected element (**[Ctrl]+[Space]**)
- - delete the selected element (**[Ctrl]+[D]**)
- - print the current contents of the Element List
- - display the Generate RTF Documentation dialog, to create an RTF report on the selected element(s) (see *Report Creation In UML Models*)
-

- select the appropriate element type from a list (click on the drop-down arrow), or **All** to list all objects; the report then lists only elements of that specific type
- - select a UML, Extended or MDG Toolbox category to specify the category of elements shown in the filter list (above)

© 1998-2010 Sparx Systems Pty Ltd

- - toggle between including child packages and their contents in the list, and showing only the first-level contents of the selected diagram or package
- - toggle the display between model hierarchy format and user-defined value-grouping 110 format
- - display a short menu from which you can select to hide the contents of the Notes compartment of each element, display the first few words, or display the full text.
- - display Help on the Element List.

Audit History

In the Corporate, Business and Software Engineering, Systems Engineering and Ultimate editions of Enterprise Architect, if Auditing is turned on and the Element List is open, you can view a history of changes to any selected element or connector, in the Audit History tab of the Output 168 window. (If security is enabled, you must have at least **Audit View** permissions to display the audit history). For information on the Auditing facility, see *Auditing UML Models.*

Work on Elements in the Element List

You can also use the context menu to perform operations on elements in the Element List. Right-click on the required element to display the context menu. The menu options are described below:

Menu Option & Function Keys	Use to
Properties	Display the Properties dialog for the selected element.
Edit Notes [Ctrl] +[Space]	Add or edit notes on the element, in the Notes window.
Add New	If the **Filter List** field in the toolbar is set to **All**, display the New Element dialog, through which you create an element of the required type. If the **Filter List** field is set to a specific element type, this option adds an element of that type to the package or diagram in the Element List, the Project Browser and the Diagram View.
Switch to Diagram View	If you have opened the list for a diagram in the Project Browser, show the elements as the diagram instead of as the Element List.
Find in Diagrams	Display the diagram that uses the element or, if the element is used in multiple diagrams, display the Element Usage dialog, which lists the diagrams that contain the element. (See *UML Modeling with Enterprise Architect – UML Modeling Tool*.)
Find In Project Browser	Highlight the selected element in the Project Browser.
Bookmark Item	Bookmark the element.
Create Linked Document [Ctrl]+[Alt] +[D] **(Edit Linked Document)**	Create (or edit) a Linked Document (Corporate, Business and Software Engineering, Systems Engineering and Ultimate editions). See the *Linked Documents* topic in *UML Modeling with Enterprise Architect – UML Modeling Tool*.
Delete linked document	Delete an existing linked document. (Only displays if the element has a linked document.)
Documentation	Generate an RTF report. You have two options: • Generate a separate report on each selected object in the report • Generate one report on all selected objects. In either case, the Generate RTF Documentation dialog displays (see *Report Creation in UML Models*). You also have the option to print out the Element List itself. Alternatively, select the **Rich Text Report** icon in the Element List toolbar. This generates one report for all selected items.

Menu Option & Function Keys	Use to
Diagram Properties	Display the Diagram Properties dialog for the diagram.
Sort Contents	In *Model Hierarchy* format, synchronize the list with the Project Browser hierarchy, to ensure that all element and package hierarchies and sequences are - if necessary - updated. (Normally changes are updated automatically, but there can be delays if changes are made outside the Element List).
Reload	Reload the element list to refresh the order and content with any recent changes.
Print	Print the Element List.
Delete Selected	Delete the selected element from the Element List. Alternatively, select the **Delete Selected** icon in the Element List toolbar.

10.3 Model Views

The Model Views window enables you to encapsulate your model into the areas you are interested in. You display the window by selecting the **View | Model Views** menu option.

View Root Nodes

There are three types of View root-node available:

- *Model Views* - stored in the model and visible to all users; you can have many of these
- *My Views* - stored locally on your machine and visible only to you; you can have only one of these
- *Technology-defined Views* - read only; each View is stored with and populated by 118 the corresponding active MDG Technology.

Additionally, there is a *Recent Discussions* folder that contains current correspondence from the Team Review 213 concerning items that are held in any of the Views. The folder has a separate repository of postings for each team review server connection 223 you access through the model. You can control how recent these postings must be, and how many are to be listed.

When you open the Model Views window for the first time on a project, a *Model Views* root section, *My Views* root section and *Recent Discussions* folder are added for you. These can not be deleted or renamed. However you can create further *Model View* root nodes which you can modify and delete.

Subordinate Folders

Under the *My Views* root node you can add a single level of *View folders*, which enable you to group *Search View* folders as best suit your requirements.

- A Search View is a folder of elements or structures that you assemble by assigning a model search to the folder. When you double-click or expand the folder, the search runs and refreshes the folder contents.
  - You can also set a search to refresh at a defined interval, and to notify you if new results 117 are found.

Under a *Model View* root node you can create Views folders that can contain Search View folders, *Slideshow* folders and *Favorites* folders.

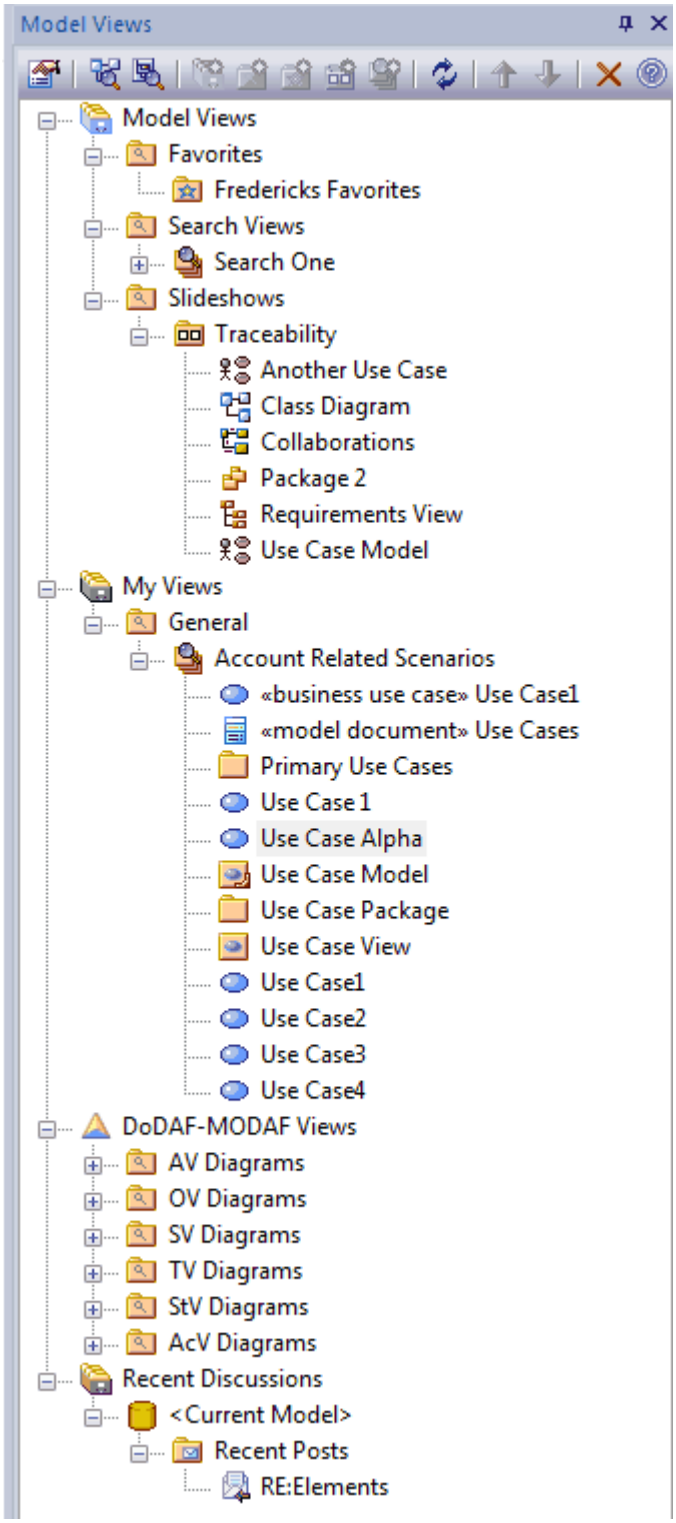
- A Slideshow folder contains diagrams only, which you can display as a slide show 119 with diagrams being shown in the sequence in which they are listed in the folder. One folder represents one slide show. You can run the slide show automatically or manually; in either case the diagrams are closed after they have been displayed.
- A Favorites folder gives you easy access to commonly-used items in the Project Browser. To create hyperlinks in a Favorites folder to the required items in the Project Browser, drag items from the Project Browser into the Favorites folder.

You can also export 118 all of the View folders containing Views from any root section as an XML file, and import 118 a Views XML file as an additional, editable *Model View* root node.

Note:

These are single-level items; if you drag a package into the *Favorites* folder, you cannot expand that package there. To select specific items inside a package, expand it in the Project Browser and then drag the items into the *Favorites* folder.

© 1998-2010 Sparx Systems Pty Ltd



Key to Model View Contents

Model Views toolbar 114

- A Model View root node

- A View Folder

- A Favorites Folder

- A View (search-based)

- A Slideshow Folder

- The My Views root node

- The DoDAF-MODAF View (a Technology-defined View)

- The Recent Discussions folder

- A repository of postings from a selected team review, concerning elements in the Model Views

- The recent posts folder for the selected team review

Each level of the Model Views hierarchy has a slightly different context menu. 115

10.3.1 Model Views Toolbar

The availability of the Model Views toolbar options depends on the type of object selected. The options are, from left to right:

Displays the appropriate Properties dialog for the item selected. Alternatively, double-click on the item, or press **[Enter]**.

Locates the selected object in any diagrams in which it has been used in the model, and either displays the single diagram with the object highlighted or lists the several diagrams in which the object has been located.

Locates and highlights the selected object in the Project Browser.

Creates a new *Model View* root node, and displays the New Model View dialog in which you enter the root node name.

Creates a new *Views* folder in the currently-selected root node.

Creates a new *Favorites* folder in the currently-selected *Views* folder.

Creates a new *Slideshow* 119 folder in the currently-selected *Views* folder.

Creates a new *View* in the currently-selected *Views* folder, and displays the Create New View dialog to define the search 117 that populates the *View*.

Refreshes the selected Model Views root node, folder, *View* or *Favorites*. For a View, this runs the Model Search defined in the View properties. 117

Moves the currently-selected object up or down **within its type**; you cannot move - for example - a package below a diagram, or a View above a Favorites folder.

Displays a prompt to confirm deletion of the selected object and - if appropriate - its contents. You cannot delete the original *Model Views*, *My Views* or *Recent Discussions* root nodes, or any technology-defined Views.

Displays Help on Model Views.

10.3.2 Model Views Context Menus

The Model Views window context menus display different options, depending on which level of the Model Views hierarchy you right-click on. The options are described below:

Menu Option	Use to
Properties	Display the appropriate Properties dialog for the selected object. (Not the *My Views, Recent Discussions*, initial *Model Views* or *Technology-defined* root nodes.) You can edit any of the properties, if required. Changes to objects populated from the model are reflected in all other views (Properties window, diagrams, reports) of that object. The **Properties** option for the *Recent Posts* folder displays the Recent Post Options dialog, which enables you to specify the number of days back from which to extract postings from the Team Review, and the number of postings to list. The **Properties** option for a *Slideshow* folder displays the Slideshow Properties 119 dialog, which enables you to automate the slide show and set the number of seconds for which each diagram is displayed. If you deselect the **Enable** checkbox, you must press **[Spacebar]** to display each diagram.
New Views Folder	Display a prompt for the *Views folder* name and create the folder in the selected root node. (Root node only.)
Import Views From XML 118	Prompt for the XML file location and create a new *Model Views* node to hold the imported Views. (Root node only.)
Export to XML (Views Only) 118	Prompt for a file path and name, and copy all Views under the selected root node to an XML file at that location. (Root node only.)
Remove Model	Display a prompt to delete the selected user-defined Model View and, if confirmed, delete

© 1998-2010 Sparx Systems Pty Ltd

Menu Option	Use to
View	the root node and all contents. (Not for the *My Views,* initial *Model Views* or *Technology-defined* root nodes.)
New Search Folder	Display the Create New View dialog (similar to the View Properties dialog) for you to define the search that populates the View 117. (View folder only.)
New Favorites Folder	Display the Create a new favorites based folder dialog, which prompts for the folder name. (View folder only.)
New Slideshow	Display the Create a new slideshow 119 dialog, in which you type the name of the slide show. You must use the Properties dialog to define the properties of the slide show. (Model View, View folder only)
Open Search	Display the Model Search tab in the main work area, listing the full results of the search and giving access to all the facilities of the Model Search 123 (View only). Alternatively, press **[Shift]+[Space]**.
Refresh	Refresh the search and opens the View or Postings Repository to show the elements or Posts retrieved by the search. Alternatively, press **[Space].**
Double Click Opens Search	Enable you to perform the Open Search function by double-clicking on the View. If you deselect this option, double-click refreshes the search and opens the View to show the elements retrieved by the search.
Find Post	Open the Project Team Review and highlights the selected post.
Open Team Review	Open the Project Team Review at the top level (Category).
Edit Connections	Display the Team Review Server Connections 223 dialog, to select which review to open.
Remove Folder	Display a prompt to delete the selected Views folder and, if confirmed, delete the folder and all contents. (View folder only.)
Remove View	Display a prompt to delete the selected View and, if confirmed, delete the View and all contents.
Remove Favorites	Display a prompt to delete the selected Favorites folder and, if confirmed, delete the folder and all contents.
Remove Slideshow	Display a prompt to confirm deletion of the selected slide show and, if confirmed, delete the slide show and all its diagrams.
Run Slideshow	Run the slide show 119 in the Diagram View.
Run Slideshow Full Screen	Run the slide show 119 in full screen mode, so that the slide show fills the whole screen.
Stop Slideshow	Cancel execution of the slide show 119 running in the Diagram View. Alternatively, press **[Esc]**.
In Project Browser	Highlight the selected item in the Project Browser. (Element / Diagram / Package object only.)
In Diagrams	Locate the selected object in any diagrams in which it has been used in the model, and either display the single diagram with the object highlighted or list the several diagrams in which the object has been located.(Element / child Package object only.)
Remove Linked Item	Display a prompt to delete the selected object and, if confirmed, remove the object from the folder. This has no effect on the object in the Project Browser or any diagrams. (Element / Diagram / Package object only.)

Menu Option	Use to
	Note: You would not delete an object in a View, as it is replaced the next time the View is refreshed.
Help	Display Help on Model Views.

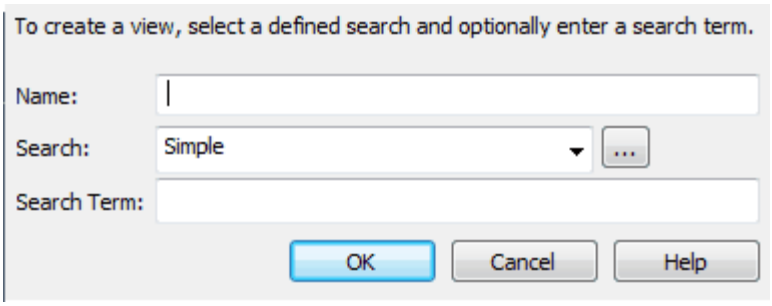
10.3.3 Model Views Operations

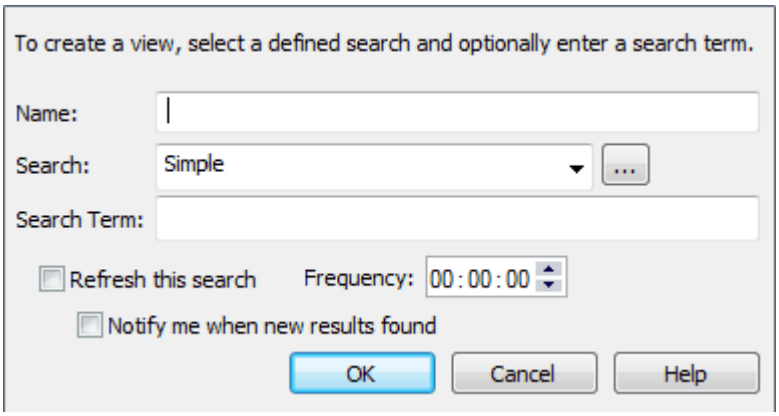
Define View Search

When you:

- First create a View, the Create New View dialog displays
- Select to display the View properties, the View Properties dialog displays.

These two dialogs are identical. However, in the Corporate, Business and Software Engineering, Systems Engineering and Ultimate editions of Enterprise Architect, a work flow feature is added to the dialogs (second illustration). (Also see the *Monitor Events* topic in *UML Model Management*.)





In the **Name** field, type a name for the View.

In the **Search** field, either:

- Click on the drop-down arrow and select an existing search from the lists, or
- Click on the **[...]** (Browse) button to display the Manage Searches 125 dialog, edit an existing search or define a new one, then **Close** the dialog and select that search name in the **Search** field.

Note:

For a custom SQL search statement, the statement should return the *guid* and *type* of the object found so that Enterprise Architect can search for the selected item in the Project Browser. For example:

SELECT ea_guid AS CLASSGUID, Object_Type AS CLASSTYPE, Name FROM t_object

© 1998-2010 Sparx Systems Pty Ltd

If required, in the **Search Term** field type a specific value to search for.

If you are working with the Corporate or extended versions of Enterprise Architect, and you want the search to run automatically and refresh the results, select the **Refresh this search** checkbox. The **Frequency** field has three sections, for hours, minutes and seconds. Click on the appropriate section and use the up and down arrows at the end of the field to set the interval for refreshing the search results. You can also set the refresh to display a pop-up notification if the search results change. To do this, select the **Notify me when new results found** checkbox.

Click on the **OK** button. The View is created (or updated) in a collapsed state. When you expand the View, the search executes and populates the View.

Display Recent Postings

Recent Postings are added to the folder automatically if they refer to items in the Model View and if they meet the criteria selected in the Recent Post Options dialog. To display the contents of a posting, double-click on the entry. The Team Review tab displays, showing the selected message.

Move Objects Into Favorites

Drag any required package, diagram or element from the Project Browser into the required Favorites folder.

Move Objects Between Views

Views and Favorites folders are fixed in the Views folder in which you create them, and you cannot move them. However, you can **copy** (by dragging) objects from any View into any Favorites folder, and **move** (by dragging) objects between any two Favorites folders.

Use Objects From Model Views

To make use of the elements, diagrams and packages held in any View or Favorites folder, click on the item and drag it into a diagram or a Team Review 213 posting. The item behaves in the same way as if you dragged it from the Project Browser.

Export/Import Views

You export Views to create an XML file that you can:

- Import into another model as a user-created Model View or
- Call from an MDG Technology Selection (MTS) file to access the Technology-defined View provided by the active MDG Technology.

The export and import functions are available from the Model Views root-node context menus.

When you use the *export* function, it acts on the complete set of View folders in the selected My Views root node, Model Views root node, or user-generated root node. You cannot export individual Views, nor can you export Favorites folders. The function displays the Save As dialog, on which you browse for the directory location for the exported XML file, and specify the file name.

When you use the *import* function, it displays the Select Import Filename dialog on which you browse for the directory and XML file you want to import. The import creates a new Model View folder with the same name as the copied root node.

Set Up a Technology-Defined View

To set up the Technology-defined View for an MDG Technology, you:

1. Create a user-generated Model View in Enterprise Architect while using the technology
2. Populate it with the required View folders and Views.
3. Export the Views from that Model View as an XML file to an appropriate location
4. Create a call to the file from the technology's MTS file (see *SDK for Enterprise Architect*).

Thereafter, any model for which the MDG Technology is active *automatically* displays those Views in a Technology-defined View.

10.3.4 Diagram Slide Show

The *Slide show* facility in the Model Views window enables you to:

- Create screen-based presentations of sets of diagrams
- Run a slide show manually
- Run a slide show automatically with each diagram displaying for a period that you define
- Display the slide show within the Enterprise Architect work area
- Display the slide show in full screen mode.

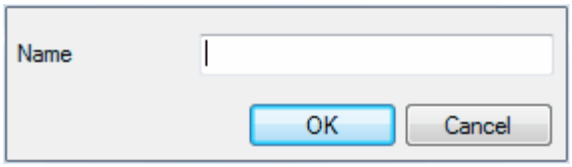
You create each slide show as a folder 114 within a Views folder under a Model View node. When you run a slide show, it displays the diagrams in the folder in the sequence in which they are listed in the folder. After each diagram has been displayed, it is closed.

Create a Slide Show

To create a slide show, follow the steps below.

1. Under a Model Views node, click on the Views folder to contain the slide show.
2. Either:
   - Right-click on the Views folder and select the **New Slideshow** context menu option or
   - Click on the **New Slideshow folder** icon in the Model Views toolbar.

   The Create a new slideshow folder dialog displays.



3. In the **Name** field, type the name of the slide show.
4. Click on the **OK** button. The new slide show folder is added to the selected View folder.
5. Dock 136 the Project Browser window separately from the Model Views window.
6. Drag the diagrams to be displayed as part of the slide show from the Project Browser into the new slide show folder. Organize the diagrams in the order in which they are to be displayed.

   Note:

   The diagram items in the slide show folder are links to the diagrams in the Project Browser, not copies of the diagrams or the diagrams themselves. Any actions you take in the slide show have no impact on the original diagrams.

7. Close the folder.

You can reorganize the diagrams in the slide show using the up/down green arrows 114 in the Model Views toolbar.

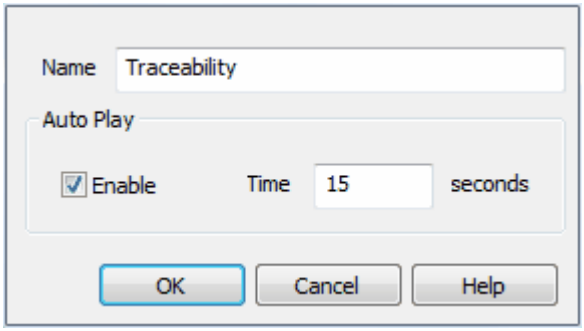
To remove a diagram that is not required, right-click on it in the slide show folder and select the **Remove Linked Item** context menu option.

Define Slide Show Operation

Slide show operation can be automated or manual. To define how the slide show is to operate, follow the steps below.

1. Right-click on the slide show folder. The context menu displays.
2. Select the **Properties** context menu option. The Slideshow Properties dialog displays.

© 1998-2010 Sparx Systems Pty Ltd



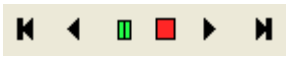
3. If you intend to automate the slide show, select the **Enable** checkbox. To run the slide show manually, deselect the checkbox.
4. If you intend to automate the slide show, in the **Time** field type the number of seconds that each diagram is to remain on display.
5. Click on the **OK** button.

Run Slide Show

To run a slide show of diagrams, either in the Diagram View or full screen, follow the steps below:

1. Right-click on the slide show folder. The context menu displays.
2. Select either the:
   - **Run Slideshow** option, to run the slideshow in the Diagram View
   - **Run Slideshow Fullscreen** option to run the slideshow using the full screen.

   The first diagram in the slide show displays.
3. If you have set up the slide show to run automatically, you can leave it to display the diagrams as defined. You can also moderate the slide show using manual commands.
4. If you are controlling the slide show manually, right-click on a slide. A small toolbar displays.



5. Control the slide show using the toolbar icons and other aids, as follows:

To:	Click On, or Press
Display the next slide	**[Spacebar]** or **[↑]**
Display the previous slide	**[←]**
Display the first slide	**[↑]**
Display the final slide	**[↓]**
Pause the slide show	
Resume the slide show	
Stop the slide show	

To:	Click On, or Press
	(In Diagram View) right-click on the slide show folder and select the **Stop Slideshow** context menu option.

Delete Slide Show

To delete a slide show, right-click on the slide show folder and select the **Remove Slideshow** context menu option. Enterprise Architect prompts you to confirm the deletion. The folder and its list of links to diagrams in the model is removed.

10.4 Model Search

The Model Search generates a report list that you can view in the main workspace. It lists each object in the Project Browser that meets the search criteria you specify within the search terms and search type.

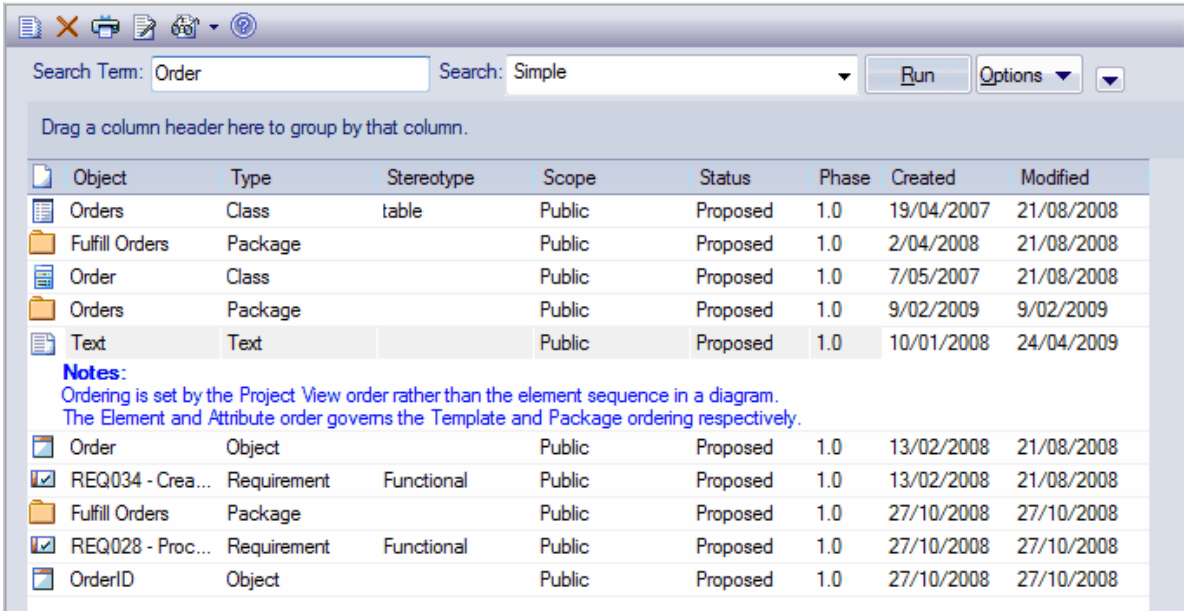
For more information on conducting searches see the *Use the Model Search* 123 topic.

When you have generated your search results, you can print them or generate an RTF report 124 on them.

To access the Model Search:

- Select the **Edit | Model Search** menu option
- Click on a package in the Project Browser and press either **[Ctrl]+[Alt]+[A]** or **[Ctrl]+[F].**

The Model Search tab displays.



Sorting and Selecting

In the Model Search you can:

- Sort the items by any column value in ascending or descending order, by clicking on the column header
- Display element or diagram properties, by double-clicking on the item
- Select:
  - An element or diagram by clicking on it
  - Several individual elements or diagrams by holding **[Ctrl]** as you click on them
  - A range of elements or diagrams by holding **[Shift]** as you click on the first and last in the range
  - All elements or diagrams in the list by pressing **[Ctrl]+[A]**.

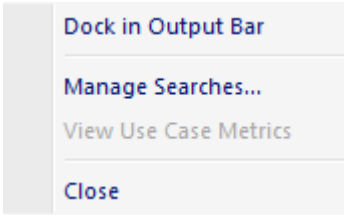
The Options Button

The **Options** button displays the **Search Options** submenu, which enables you to display the search results

© 1998-2010 Sparx Systems Pty Ltd

as a tab of the Output 168 window 168 rather than in the Model Search View. An advantage of moving the search results to the Output window is that you can select items from the search results and drag them onto a diagram, which you cannot do when the results are in the Model Search View. If you select the **Dock in Output Bar** menu option, when you next display the menu this option becomes **Dock in Main View**.

The **Search Options** submenu also provides the means of performing advanced searches 125 on your project, and displaying project metrics (see *Project Management With Enterprise Architect*). The arrow button to the right of the **Options** button also enables you to perform advanced searches.



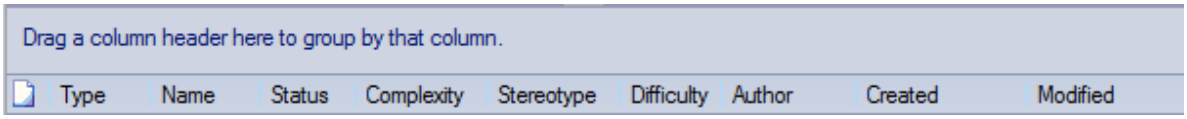
The Toolbar

The Model Search toolbar enables you to quickly select a number of operations on the search list as a whole, or selected items.

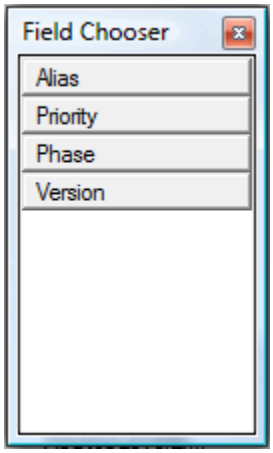
The options are, from left to right:

- **Edit Notes** (**[Ctrl]+[Spacebar]**) - For the selected item, opens the Notes window (if it is not already open) so that you can edit the text of the notes.
- **Delete** (**[Ctrl]+[D]**) - For a selected item or group of items, deletes them from the model; refresh the project to check that the items have been deleted.
- **Print** - Prints the complete set of search results.
- **Rich Text Report** - For a selected item or group of items, generates and prints an RTF report.
- **View Notes** - Displays a short menu that enables you to select whether, for all items, to:
  - Hide any Notes text from display in the search results
  - Display the first few words of the Notes text in the search results
  - Display the full Notes text in the search results.
- **Help** - Displays the Enterprise Architect Help, starting with the Model Search Help topic.

The View Header



The View header defines the columns of information that are presented by the Model Search, and the order in which data items are presented. By right-clicking on the header you display the **Field Chooser** context menu option, which in turn displays the Field Chooser dialog. This enables you to add columns from the output. Between them, the View header and Field Chooser dialog show the full range of column headers available.



To *add* a column heading to the View header, drag it from the Field Chooser dialog onto the header, to the position you want the column of data to display. When you have selected the column headings you require, click on the red cross in the top right corner of the Field Chooser dialog to close it.

To *remove* a column from the output, drag the column heading downwards out of the View header. A black cross displays on the heading as you move it, and then both heading and cross disappear when you release the mouse button.

You can also change the sequence of columns, by dragging column headers left or right.

You can organize the reported data hierarchically according to the value of one or more of the column categories. For example, you could organize the data by *Type*, and within each Type by *Status*. If you then click on any of the other column headings, the data within this grouping is further sorted with the values of the selected column (for example, *Created*) in ascending or descending order.

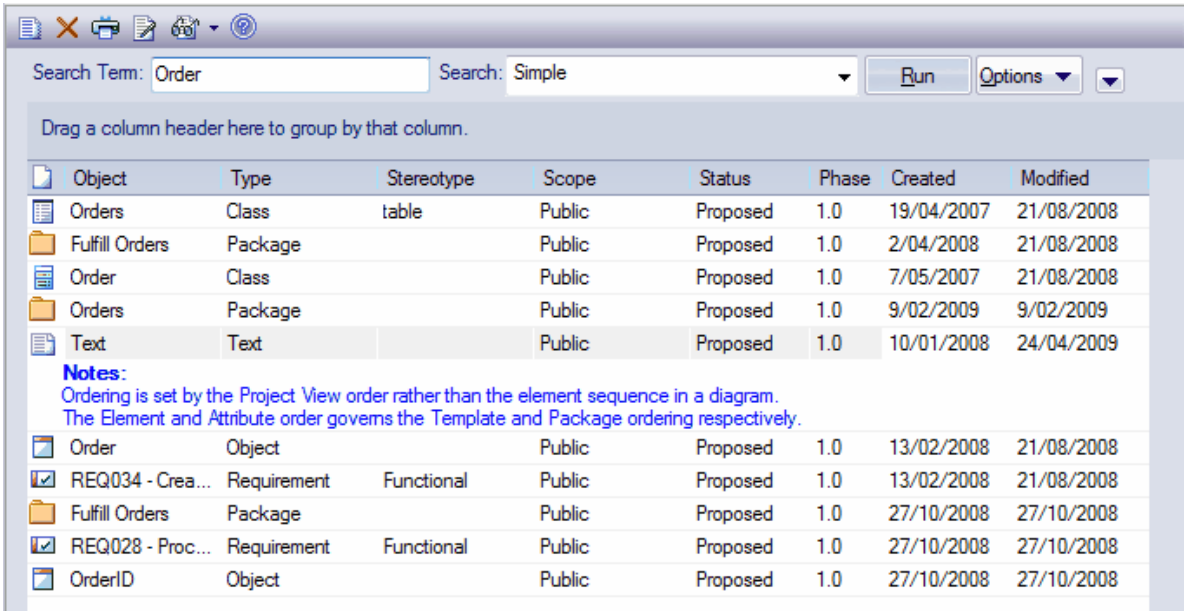
To set up the hierarchical grouping, drag the column heading representing the primary grouping (such as *Type*) onto the **Drag a column header here to group by that column** field. Then drag the column heading for the next level of grouping (such as *Status*) to the right of the first heading. The two heading titles display as connected blocks, as shown below.

You can, if required, add further levels of grouping by dragging other column headings onto the hierarchy, and restructure the hierarchy by dragging existing or additional headings into the level you want them to hold. For example, you could make *Type* the secondary grouping by dragging it to the right of *Status*, or extend the hierarchy by dropping *Object* between *Type* and *Status*.

To remove a grouping level, drag the appropriate column heading out of the hierarchy and below the View header. Any subordinate groupings move up a level.

10.4.1 Use the Model Search

You perform searches within your project using the Model Search 121. You search the whole model, unless you have selected the **Current Tree Selection** option in the search management panel 125. In that case, you can search within a specific package selected from the Project Browser.



© 1998-2010 Sparx Systems Pty Ltd

In the **Search Term** field type the text to search for, and in the **Search** field select the type of search to perform 131 (the default being **Simple)**. Click on the **Run** button to display your results.

You can perform more complex searches and create your own search definitions 128. To begin these tasks:

1. Click on the arrow button to the right of the **Options** button. The search manager panel 125 displays just above the search results panel.

External Access to Model Search

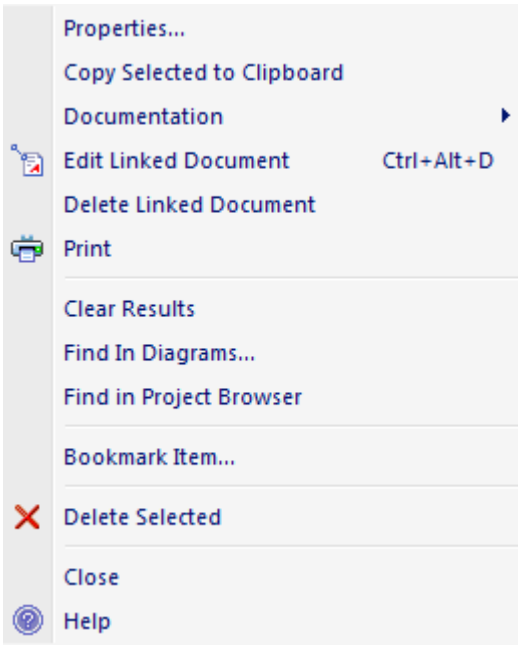
You can access the Model Search facilities and perform specific searches indirectly, from Add-Ins, MDG Technologies, from a hyperlink and from a shortcut to access your model. This entails setting up a search profile either in the appropriate tool, or as an XML file accessed by the tool.

For information on performing a search from:	See
An MDG Technology Selection (MTS) File (using an exported search definition 127)	*Working With MTS Files* in *SDK for Enterprise Architect*
A Login Shortcut	*Shortcuts To .EAP Files* 36
An Add-In	*Add-In Search* in *SDK for Enterprise Architect*
A Hyperlink	*Hyperlinks* in the *UML Dictionary*

10.4.2 Work On Objects In Search

You can select elements or diagrams in the Model Search and perform various operations on them, as well as simply dragging the item into a Team Review 217 post.

Right-click on the required object to display the following context menu:



Note:

Not all options are available for a diagram.

Menu Option	Use to
Properties	Display the Properties dialog for the element.

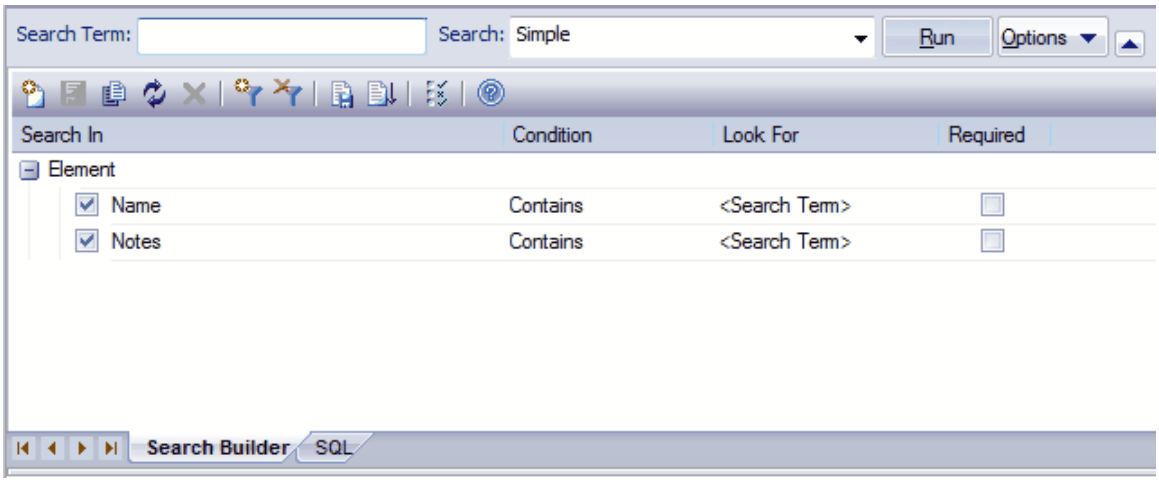
Menu Option	Use to
Copy Selected to Clipboard	Copy the selected item to the MS Windows clipboard so that it can be pasted to a document, spreadsheet or email.
Documentation	Generate an RTF report. You have two options: • Generate a separate report on each selected object in the Model Search. • Generate one report on all selected objects. In either case, the Generate RTF Documentation dialog displays (see *Report Creation in UML Models*). **Note:** If you generate the report using a custom SQL search, the SQL must include 128 *ea_guid AS CLASSGUID* and the *object type.*
Create Linked Document [Ctrl] +[Alt]+[D] **(Edit Linked Document)**	Create (or edit) a linked document (Corporate, Business and Software Engineering, Systems Engineering and Ultimate editions). See the *Linked Documents* topic in *UML Modeling with Enterprise Architect – UML Modeling Tool*.
Delete Linked Document	Delete an existing linked document. (Only displays if the element has a linked document.)
Print	Print out the filtered results.
Clear Results	Clear the search results from the Model Search.
Find in Diagrams	Display the diagram that uses the element or, if the element is used in multiple diagrams, display a list of diagrams to choose from.
Find in Project Browser	Highlight the element in the Project Browser.
Bookmark Selected	Bookmark the element.
Delete Selected	Delete the selected element from the Model Search.
Close	Close the Model Search.
Help	Display this Help topic on the Model Search.

10.4.3 Search Definitions

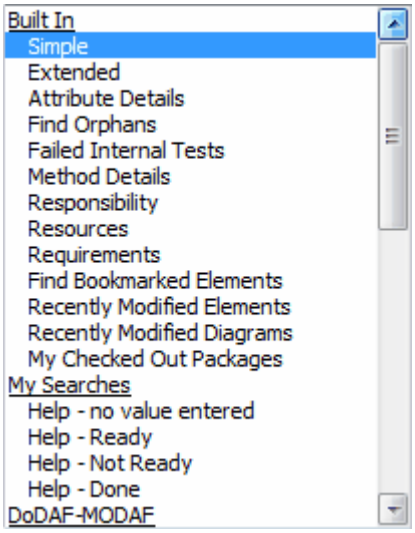
You provide search filters and create new search definitions using the search manager panel. To display this panel:

1. On the Model Search tab, click on the arrow button to the right of the Options button 123. The search manager panel displays underneath the **Search Term** and **Search** fields.

© 1998-2010 Sparx Systems Pty Ltd



Search filters enable you to perform customized searches on a **Search Term** in order to locate model elements having specific characteristics. The **Search** drop-down list provides several pre-defined searches 131 .



For ease of use, the list of available searches is separated into built-in searches, user-defined searches 128 and Add-In searches.

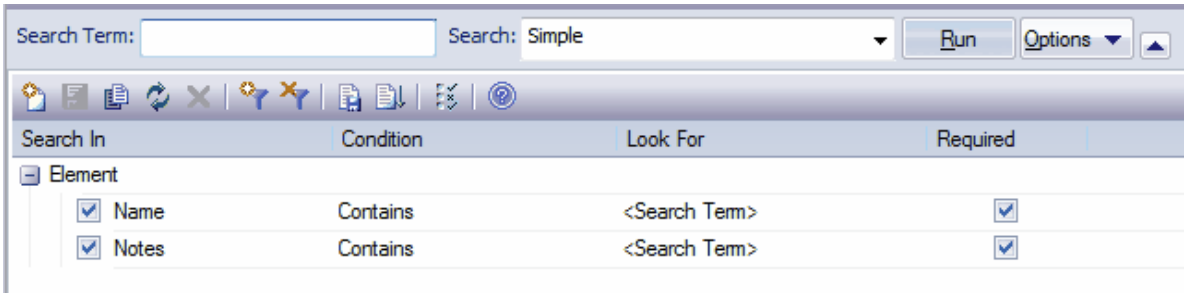
The default is a **Simple** search, which searches all elements, looking at the **Name** and **Notes** fields only. If the search term is found in the **Name** field *or* the **Notes** field, those elements are displayed.

Important:

The fields listed in a search have an OR relationship when none of the **Required** checkboxes are ticked; that is, if the search term is found in any *one* of those fields, then the element is displayed.

If the search definition includes one field only, the **Required** checkbox must be selected, otherwise the search produces incorrect results.

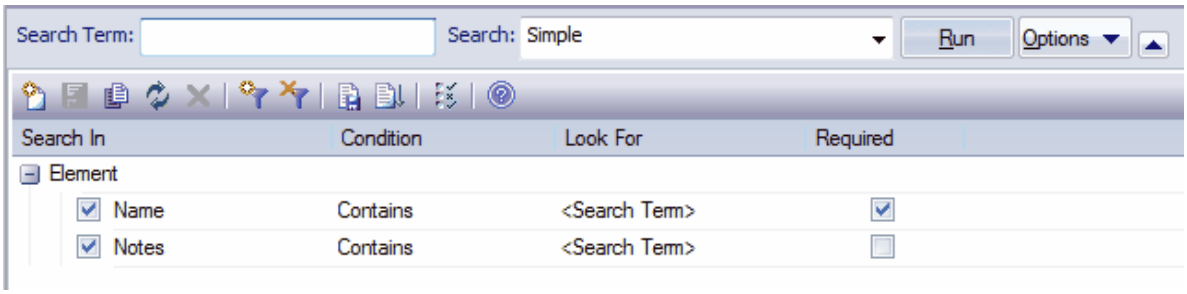
In the Simple search below, the **Name** and **Notes** fields both have the **Required** checkbox ticked, so the two fields have an *AND* relationship. The search displays only those elements that contain the search term in both the **Name** *and* **Notes** fields.



Note:

Any field having the **Required** checkbox ticked overrides fields where the **Required** checkbox is not ticked.

The following search finds elements that must have the search term in the **Name** field and that might or might not have the search term in the **Notes** field.



The search manager toolbar enables you to configure the system-provided searches, and to create and edit your own searches. The toolbar icons, from left to right, provide access to the following functions:

Option	Use to
New Search	Create a new search definition, with new search criteria. See Create Search Definitions 128.
Save Search	Save a modified or new search.
Copy Search	Copy the existing search selected in the **Search** field, to modify.
Restore Default	Restore any changed parameters to the default settings and format.
Delete Search	Delete the search definition from the **Search** drop-down list.
Add Filter	Add a new set 132 of parameters to filter the search on.
Remove Filter	Delete the selected filter from the search.
Export Search	Display a selection box that enables you to select searches to export to an external directory as an XML Search file.
Import Search	Display the Windows Directory Explorer Open dialog to enable you to import searches as XML Search files from an external directory.
Search Options	Display the Advanced Options dialog, to define where the search should operate and how the search should match filters.

You use the main body of the search manager panel to configure the element search filters that are contained in the selected search. A filter item consists of the element field name (**Search In**), the conditions placed on the field value, the actual value or delimiting value to search on, and whether the filter item is required (mandatory). The components are defined in greater detail in the following table:

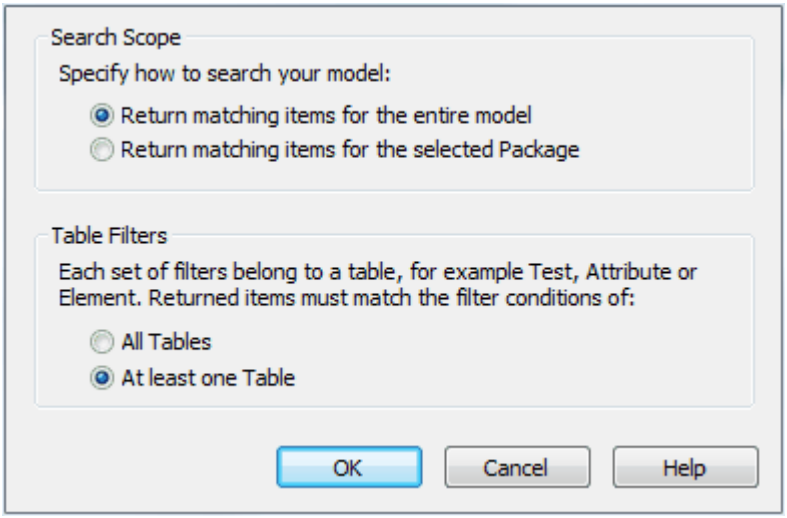
© 1998-2010 Sparx Systems Pty Ltd

Column	Use to
Search In	Select the type and name of each element feature to search on.
Condition 133	Select the condition of the search parameter. The available options are **Contains**, **Equal To**, **Not Equals** and **One Of**.
Look for 133	Specify the search term to perform the conditional search on. This value can pertain to the selected element type. For example, the value could be a date for *DateCreated* or a text value for other fields. The search term can contain multiple values, separated by commas.
Required	Indicate that the search results must include elements with your search term in that field.

You add the filters by clicking on the **Add Filter** toolbar icon, to display the Add Filters dialog.

Advanced Options

When you click on the **Search Options** icon on the Manage Searches toolbar, the Advanced Options dialog displays.



In the Search Scope panel, select either:

- **Return matching items for the entire model** - the default, to run the search across the entire model, or
- **Return matching items for the selected Package** - to run the search on a specific package, which you select in the Project Browser.

Note:

If you select **Return matching items for the selected Package**, navigating the Project Browser does not change your search results until you click on the **Run** button. That is, to search different areas of the project, click on the first required package in the Project Browser and click on the **Run** button, check the results, and then click on another package in the Project Browser and click on the **Run** button again.

In the Table Filters panel, select either:

- **All Tables** - to ensure that the search only retrieves elements that match every check in the search
- **At least one Table** - the default, to ensure that the search retrieves elements that match at least one of the checks in the search.

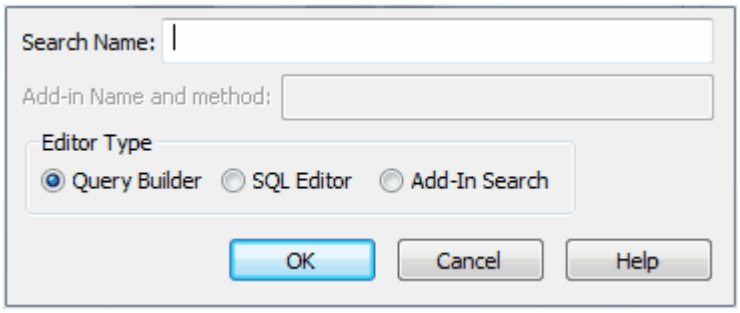
10.4.3.1 Create Search Definitions

Search definitions 125 are created using the search manager panel. To display this panel:

1. On the Model Search tab, click on the arrow button to the right of the Options button 123. The search manager panel displays underneath the **Search Term** and **Search** fields.

To create a new search definition, follow the steps below:

1. Click on the **New Search** icon in the toolbar. The Create New Search Query dialog displays.



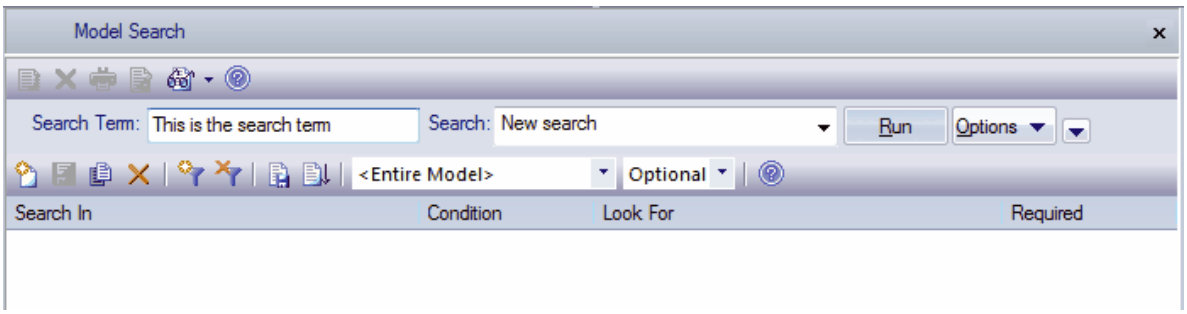
2. In the **Search Name** field, type a name for your new search.
3. Select the radio button for the type of search you require:
   - The **Query Builder** 129 option provides an interface that enables you to design your own search.
   - The **SQL Editor** 129 option enables advanced users to directly write SQL Select statements.
   - The **Add-In Search** 131 option enables you to supply the name of your Add-In and a method (for example *MyAddin.RunThisMethod*). This method is called whenever the search is run. This search can be exported and distributed as a part of your Add-In. For more information, see *Add-Ins* in *SDK for Enterprise Architect*.
4. Click on the **OK** button.

Note:

User-defined searches are stored in the Program Files directory, and not in the project repository.

Query Builder

Your search definition now appears as being selected in the **Search** drop-down field. You can now click on the **Add Filter** toolbar icon to Add Filters 132.

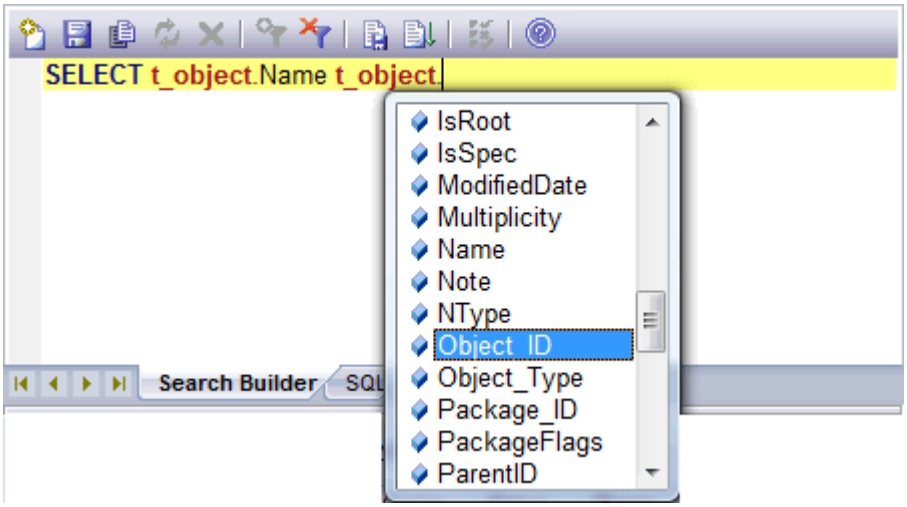


SQL Editor

The Custom SQL dialog displays, enabling you to input your *SELECT* statement. The SQL editor is based on the common Code Editor, and provides an intellisense *autocompletion list* populated with Enterprise Architect's repository structure. You can display the autocompletion list by pressing **[Ctrl]+[Spacebar]**.

For more details on intellisense and the common Code Editor, see the Code Editors 173 topic.

© 1998-2010 Sparx Systems Pty Ltd



Enterprise Architect also enables you to use #xxx# macros as string replacers in WHERE statements, so that the same search can be used by different people in different environments. These macros include:

- *#WC#* - Gets the appropriate wild card for the current database, and so enables the search to be performed on models on different databases; for example, *t_object.Name LIKE '#WC#Test#WC#'*
- *#Author#* - Takes the value of the **Author** field in the Options dialog General page, and enables the defined search to be performed on objects created by that user (this value can be manually re-set in the Options dialog)
- *#DB=<DBNAME>#* where *<DBNAME>* can be one of the following:
  - MYSQL
  - JET
  - ORACLE
  - SQLSVR
  - ASA
  - OPENEDGE
  - POSTGRES.

  For example, *#DB=ORACLE# t_object.ModifiedDate >= (SYSDATE - INTERVAL '<Search Term>' DAY)*
- *#UserName#* - Gets the name of the person logged into version control; for example, *t_package.PackageFlags LIKE '#WC#VCCFG=#WC#CheckedOutTo=#UserName##WC#'* (this is from Enterprise Architect's built in search *My Checked Out Packages).*

Note:

For all Enterprise Architect functions in which you use a custom SQL statement (such as RTF reporting or Model Views) the statement must return the *guid* and *type* of the object found so that Enterprise Architect can search for the selected item in the Project Browser. For example:

SELECT ea_guid AS CLASSGUID, Object_Type AS CLASSTYPE, Name FROM t_object

You can extend the usability of your SQL searches using the aliases *CLASSGUID* and *CLASSTYPE*. These enable Enterprise Architect to display the Properties dialog and icon for elements, connectors, attributes or operations, as well as selecting them in the Project Browser. Some simple examples for using these aliased fields are provided below:

SELECT ea_guid AS CLASSGUID, Object_Type AS CLASSTYPE, Name FROM t_object

SELECT ea_guid AS CLASSGUID, Connector_Type AS CLASSTYPE, Name FROM t_connector

SELECT ea_guid AS CLASSGUID, 'Operation' AS CLASSTYPE, Name FROM t_operation

SELECT ea_guid AS CLASSGUID, 'Attribute' AS CLASSTYPE, Name FROM t_attribute.

When you have defined the *SELECT* statement, click on the **Save** button to save this search. The search is then available from the **Search** drop-down list.

Add-In Search

Type in the field the name of your Add-In, a period (full stop) and then the name of the method to be called (for example, *MyAddin.RunThisMethod*). Your search is automatically saved and available from the **Search** drop-down list.

10.4.3.2 Pre-defined Searches

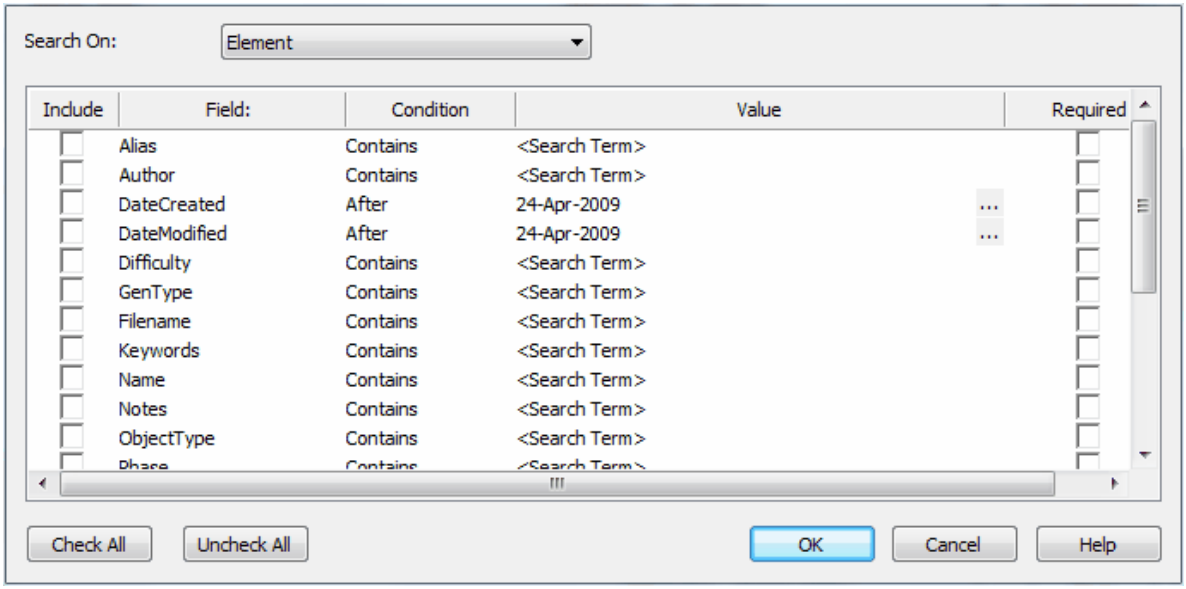
The following pre-defined searches are provided with Enterprise Architect, and are listed in the *Built-In* category in the **Search** drop-down list.

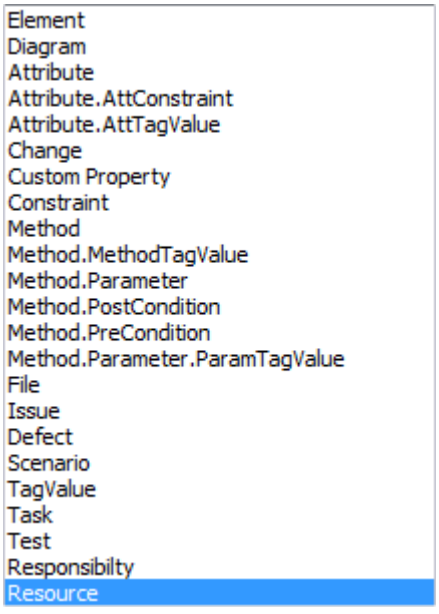
- **Simple** - Searches the *Name*, *Alias* and *Notes* fields of all elements for the given **Search Term**.
- **Element Name** - Searches for an exact match against the element name, alias, method or operation; the default search in the **Search in Model** 182 menu option.
- **Extended** - Searches many additional fields relating to the element, including *Attributes, Operations, Tagged Values* and *Test Cases*.
- **Attribute Details** - Searches for elements with attributes relating to the **Search Term**, including Tagged Values, constraints, and common attribute data fields.
- **Find Orphans** - Searches for orphaned elements throughout the model, with the ability to filter on common element fields using a **search term**. An 'orphaned' element is an element that does not appear on any diagram in the model.
- **Failed Internal Tests** - Searches for elements containing internal test cases where the **Search Term** is in any common *Test Case* field and the *Status* value is 'Fail'.
- **Method Details** - Searches for elements with operations and methods relating to the **Search Term**, including Tagged Values, constraints and common operation and method data fields.
- **Responsibility** - Searches for elements with internal responsibilities/requirements where the **Search Term** relates to any common *Responsibility/Requirement* field.
- **Resources** - Searches for elements with assigned resources where the search term relates to any common *Resource* field.
- **Requirements** - Searches for Requirement element types where the search term relates to any common element field.
- **Find Bookmarked Elements** - Searches for elements that have been bookmarked, anywhere in the project.
- **Recently Modified Elements** - Searches for elements that have been recently modified, anywhere in the project. The **Search Term** relates to any common element field.
- **Recently Modified Diagrams** - Searches for diagrams that have been recently modified, anywhere in the project. The **Search Term** relates to any common diagram properties field.
- **My Checked Out Packages** - Searches for packages that are marked as checked out by the currently-logged in user.

© 1998-2010 Sparx Systems Pty Ltd

10.4.3.3 Add Filters

Click on the **Add Filter** icon in the search manager panel 125 or the **Add Filter** button on the Generate RTF Documentation dialog (see *Report Creation in UML Models*). The Add Filters dialog displays.



Option	Use to
Search On	Select items to build up search filters on any information about an object. The following is a list of what is available, before you have defined a search.  If you are adding filters to an existing search, the list contains only items appropriate to the initial filter. For example, if the initial filter is on diagram properties, the list for any subsequent filters for the search only contains the **Diagram** option.
Include	Select each field item to include in your search (select the checkbox).
Field	Identify the name of the field to search. See Fields and Conditions 133. The list presents items specific to the filter *Search On* item.

Option	Use to
Condition	Specify the condition of the search parameter. See Fields and Conditions 133.
Value	Type a value pertaining to the selected element field. For example, the value could be a date for *DateCreated* or a text value for other fields. The search term can contain multiple values separated by commas; see Fields and Conditions 133.
Required	Select a particular field to generate a result set that *must* contain your search term in that field.
Check All	Select all the items to include them in the search definition.
Uncheck All	Deselect all the items to omit them from the search definition.
OK	Apply the filter. The fields selected are added to the search definition.

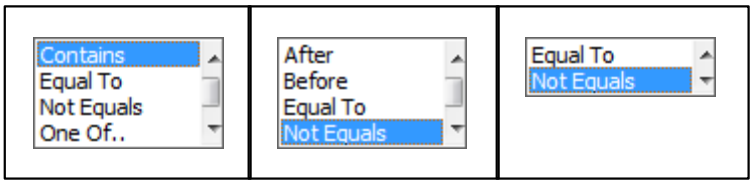
You can add multiple search definitions as necessary. Note that if you select the **Required** field in multiple definitions the search rapidly becomes impractical. Multiple search definitions are better for 'and/or' searches.

See Also

- Create Search Definitions 128

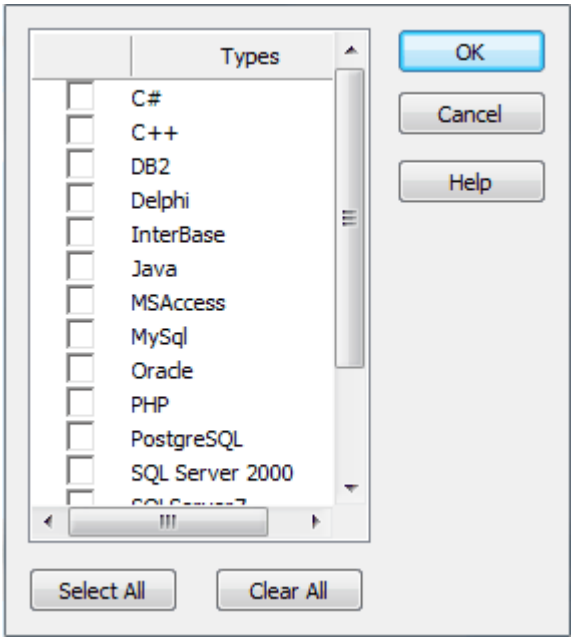
10.4.3.3.1 Fields and Conditions

When you click on a condition for a particular field, a selection of condition options becomes available, as shown in the following example:

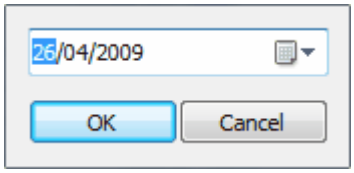


For some conditions, the value field contains an ellipsis (...). Click on this to display a selection dialog. Examples of selection dialogs are shown below.

Example Selection dialog for *One Of* section



Date Selection dialog for *Before* or *After* section



Date selection from the drop-down

© 1998-2010 Sparx Systems Pty Ltd

See Also

- Create Search Definitions 128
- Add Filters 132

11 The Web Browser

The Web Browser displays as a tab of the central work area, like the Start Page, Model Search, Element List and Diagram View. It provides access within Enterprise Architect to internet facilities such as email, websites and search engines.

To access the Web Browser:

- Press **[Ctrl]+[Alt]+[W],** or
- Select the **View | Other Project Tools | Internal Web Browser** menu option.

The Web Browser opens at the default home web site; you define the default home website, search engine and email exchange address on the General page of the Options 190 dialog.

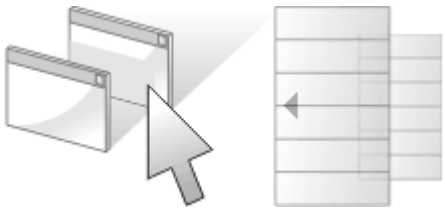
To access the:

- Email exchange server, click on the 'envelope' icon in the toolbar; the email login window displays
- Web search engine (such as *Google*), click on the 'spyglass' icon in the toolbar; the search engine screen displays
- Home web site, after displaying other web pages, click on the 'house' icon in the toolbar.

To go directly to another website or email server (your internet security permitting), in the **Address** field type or select the website http address and click on the **Go** button.

© 1998-2010 Sparx Systems Pty Ltd

12 Arrange Windows and Menus



Enterprise Architect enables you to rearrange the windows and some menus to suit your work habits. For example, you can:

- Dock Windows 136
- Autohide Windows 138

12.1 Dock Windows

A number of Enterprise Architect windows can be freely positioned on the screen, or docked against any edge of the *application workspace*. These windows are collectively called dockable windows 140. Drag the window around the application workspace until you find a comfortable way of working. The examples below describe a few ways you can rearrange the windows to suit your work habits.

Floating Windows

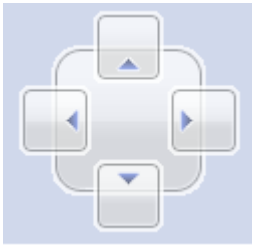
To float a window anywhere on the screen, just drag the window by its title bar to the required position.

Dock a Window Against an Edge

The *navigation compass* enables you to dock windows against an edge of the application workspace. You drag the window over one of the points of the compass to dock it into a tabbed location. The window does not overlap any other window, so if you are docking several windows you could cover the workspace; however, you can avoid this by combining them in a single tabbed frame 137.

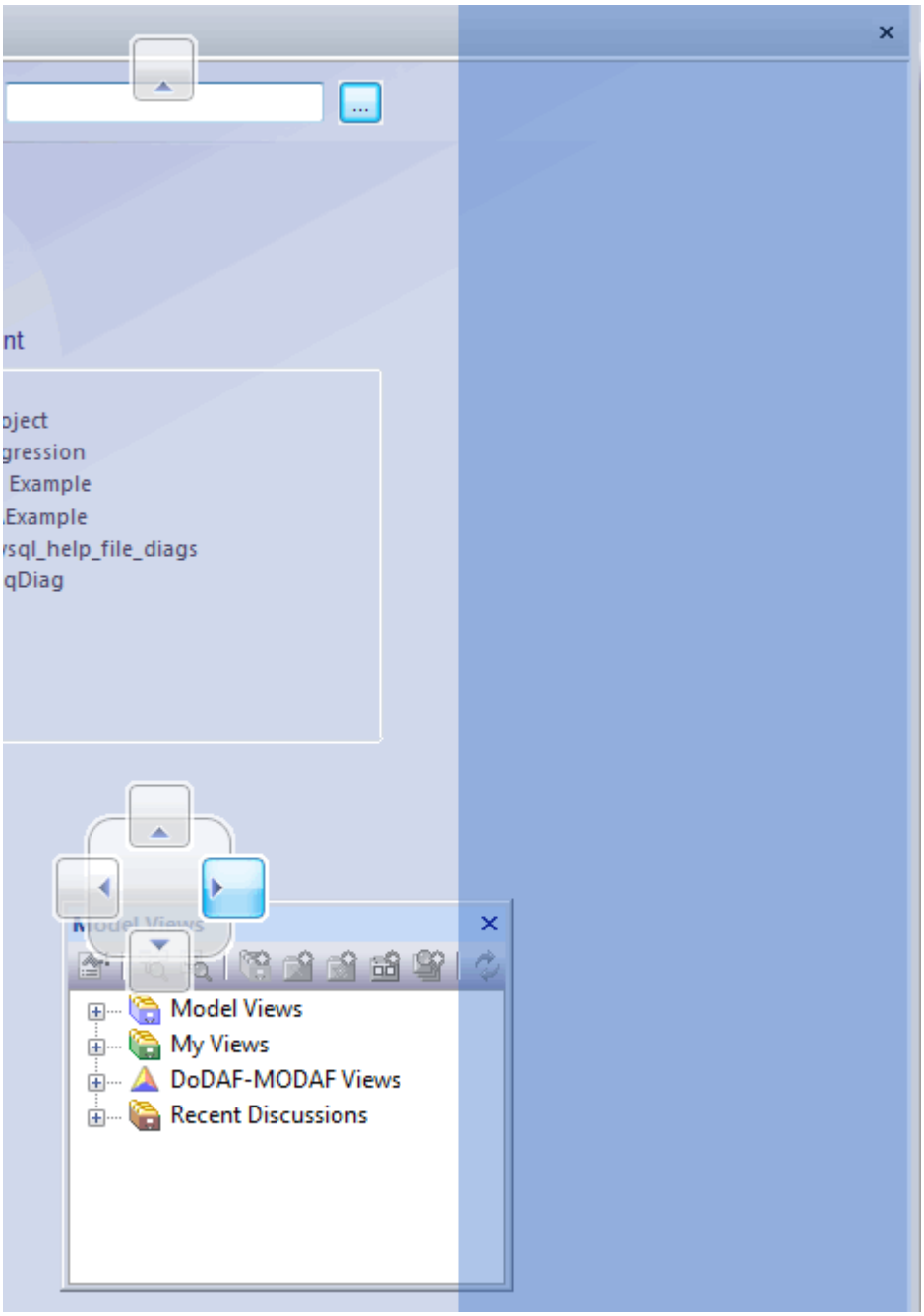
To dock a window against an edge, follow the steps below:

1. Click on the item to move and start dragging it towards the required position. This activates the navigation compass.



2. Drag the window onto a compass point. The screen display shades the area where the window is to be placed.
3. Release the mouse button over the compass point to confirm the position; this docks the window.

In the example below, when the mouse button is released the Model Views window is docked into the shaded area.

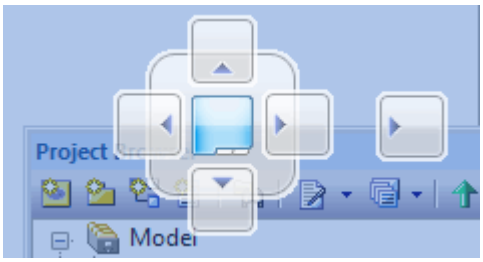


Dock Required Windows into One Frame

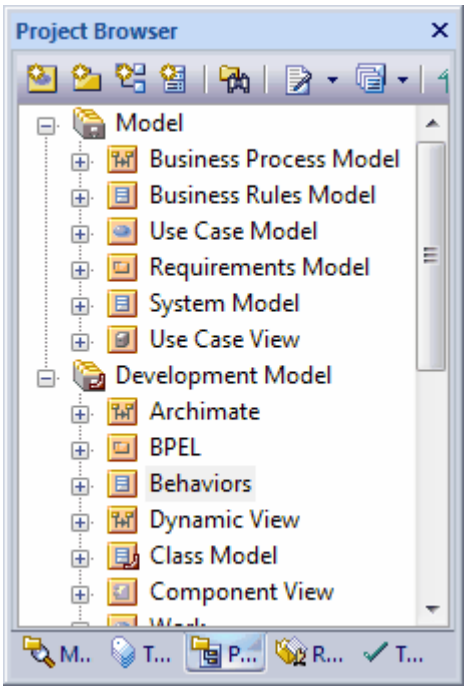
You can also dock all of the windows you are using into a single frame, by either:

- Dragging the title bar of each window up to the title bar of the first docked window, or
- Dragging each window over the 'tabbed frame' icon in the middle of the compass, when another window is already docked.

© 1998-2010 Sparx Systems Pty Ltd



You can do this with all dockable windows. The following example shows the Testing, Project Browser, Resources, Model Views and Tagged Values windows all in one frame.



To separate a window from a combined frame, click on the window tab at the bottom of the frame and drag it away.

12.2 Autohide Windows

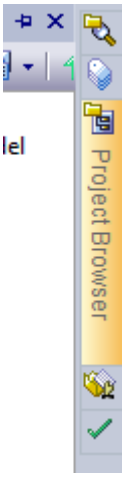
Autohide Using the Toggle Button

You can automatically hide browser frames by clicking on the button, located in the top right corner of the frame.

To turn off the autohide for a particular set of windows within a frame, click on the button.

Use Automatically Hidden Windows

When you automatically hide a set of windows in a frame, the tabs contract to the outside of the application workspace.



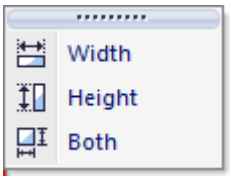
Hover the cursor over a window symbol to expand both the tab and the associated window.

Tip:

You can also use the **View | Visual Style | Animate Autohide Windows** menu option to animate windows that have been automatically hidden.

12.3 Tear Off Menus

Some sub-menus in the Enterprise Architect main menu are tear off menus. This is indicated by the bar at the top. For example, the **Element | Make Same** sub-menu is a tear off menu:

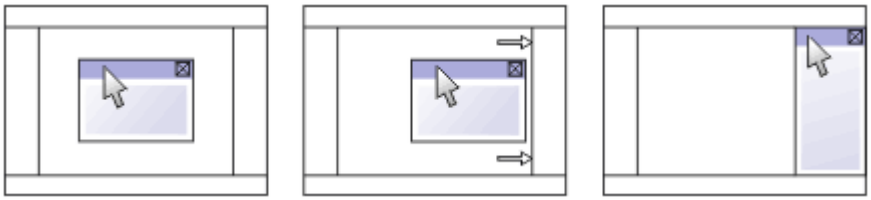


A tear off menu can be dragged out of the menu structure into its own window. Simply click on the bar at the top and drag it away. The menu detaches itself as shown here:

Once detached, the menu can also be docked in the toolbar section at the top of the screen, or on the edges of the workspace.

© 1998-2010 Sparx Systems Pty Ltd

13 Dockable Windows



There are several dockable 136 tab windows available to use in Enterprise Architect. These can be accessed either:

- Through the **View** menu, or
- Through the context menu accessed by right-clicking on the main menu.

The dockable windows available include:

- Project Browser 19
- Properties 140
- System 142
- Testing (see *Project Management with Enterprise Architect)*
- Maintenance (see *Project Management with Enterprise Architect)*
- Enterprise Architect UML Toolbox 71
- Resources 143
- Source Code Viewer 145
- Scripter window 148
- Debug (see *Visual Execution Analyser in Enterprise Architect)*
- Tasks Pane 168
- Notes 160
- Traceability 160
- Tagged Values 162
- Project Management 167
- Output 168
- Model Views 113
- Element Browser 154
- Relationships 157
- Rules and Scenarios 158
- Pan & Zoom 170
- Layout Tools (see *UML Modeling With Enterprise Architect - UML Modeling Tool)*
- Team Review 213
- Diagram Filters 170.

Tip:

If the text in a window panel is too small to read comfortably, click on it, press and hold **[Ctrl]** and use the mouse wheel to expand and reduce the text size.

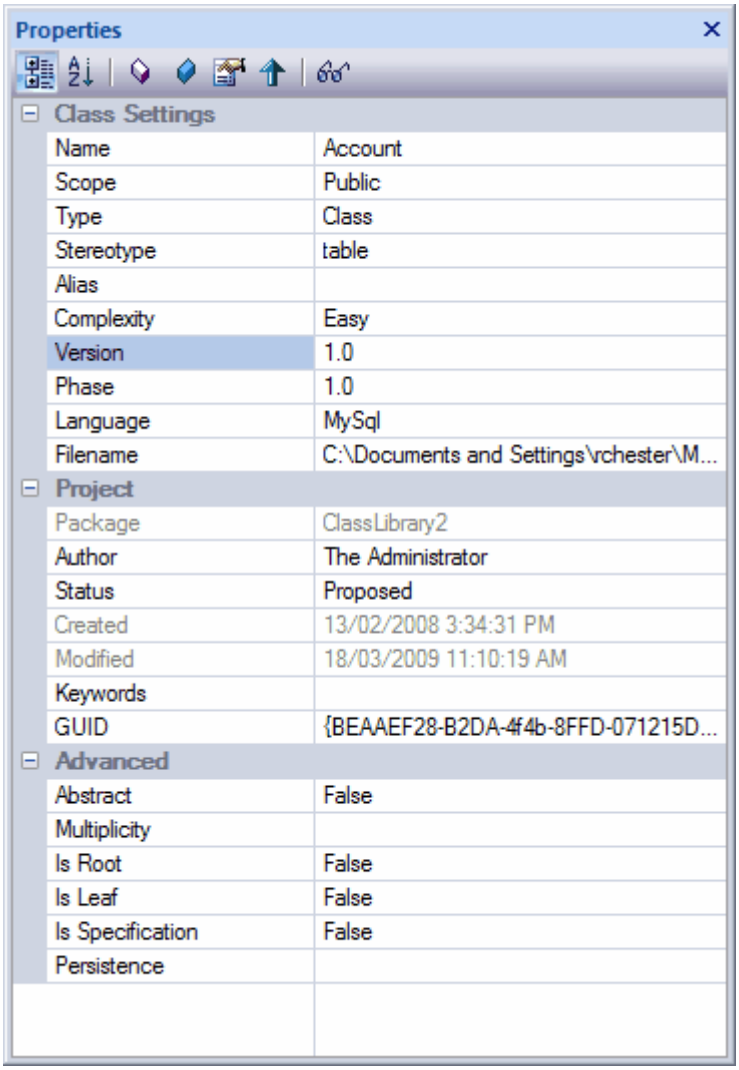
Note:

On the Testing, Maintenance and Project Management windows, any descriptive, history, input or results text for a selected item is also displayed in the Notes window. You cannot edit this text in the Notes window.

13.1 The Properties Window

Access: **View | Element Properties**.

The Properties window provides a convenient way to view (and in some cases edit) common properties of elements. When an element is selected, the Properties window shows the element's name, stereotype, version, author, dates and other pertinent information.



Tip:

The Properties window can be a quick method of setting a single property (such as **Phase** or **Status**). To access and edit all properties of an element, double-click on the element in a diagram or in the Project Browser.

Properties Sections

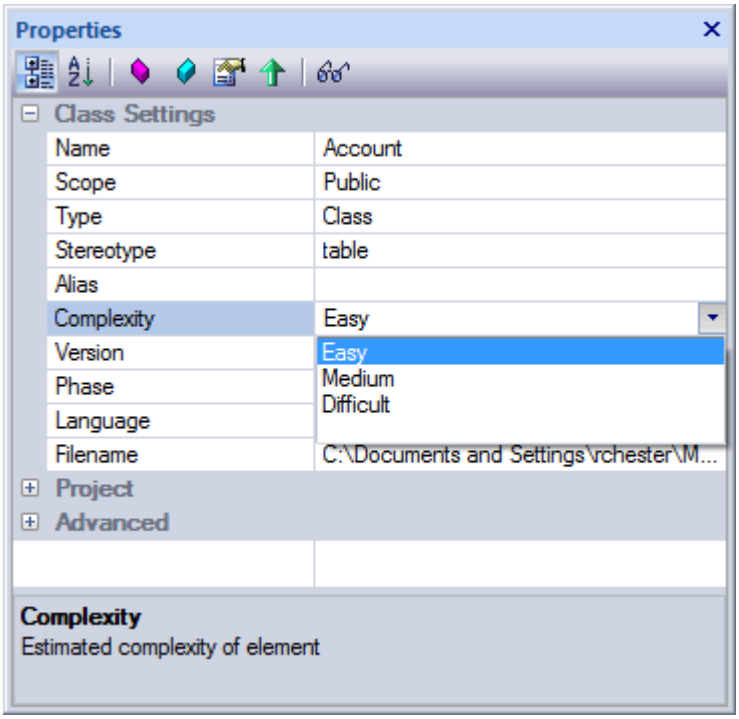
The Properties window is divided into three expandable sections:

- <Element type> Settings - for the basic element details
- Project - for general housekeeping settings
- Advanced - only active for generalizable elements.

Notes:

- When you click on a field name, a brief explanation of that field displays at the bottom of the Properties window, unless you have selected the **Hide Properties Info Section** 190 checkbox on the General page of the Options dialog (as for the above screen illustration).
- If you click on the field value for an editable field, a drop-down arrow displays that enables you to select a different value.

© 1998-2010 Sparx Systems Pty Ltd

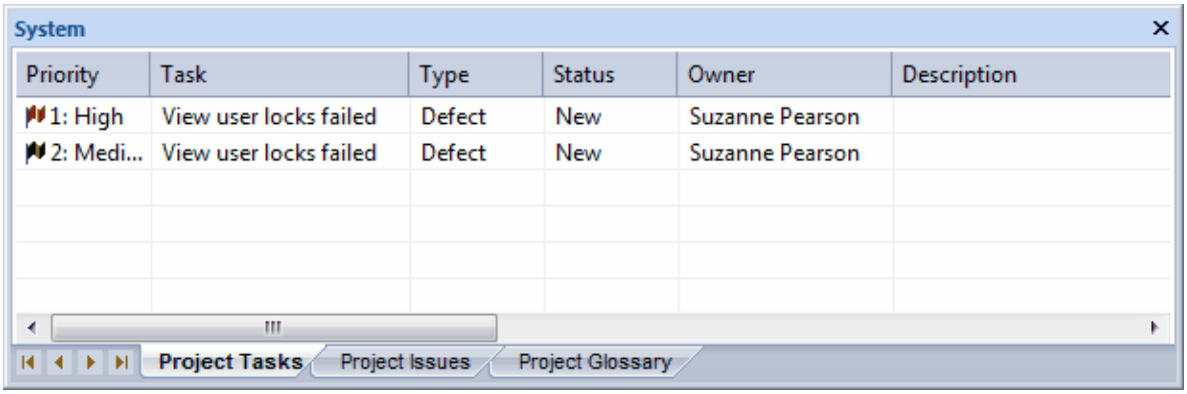


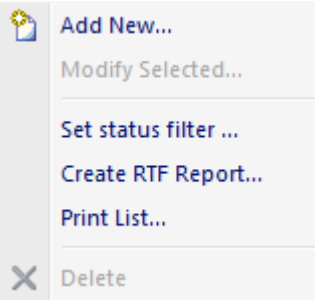
13.2 The System Window

Access: **View | Other Project Tools | System**.

The System window documents tasks and issues that relate directly to the current project. It has three tabs:

- Project Tasks - a list of major project tasks that require attention; you can filter tasks based on their current status - right-click for a popup menu, or double-click on a line item to modify details
- Project Issues - a list of events, occurrences and situations that impact on project development and delivery; you can review Issues using the right-click context menu or by double-clicking on selected issues
- Project Glossary - a list of all the technical and business terms already defined for a model; you can add to the list, delete or change items and filter the list to exclude by type.





Note:

Right-clicking in the System window displays a context menu that has options for filtering tasks/issues by status, and glossary by term. You can also rearrange the sort-order by clicking in the title bar of the column that the items are to be indexed on.

For more information concerning project tasks, issues and Glossary, see *Project Management with Enterprise Architect*.

13.3 The Resources Window

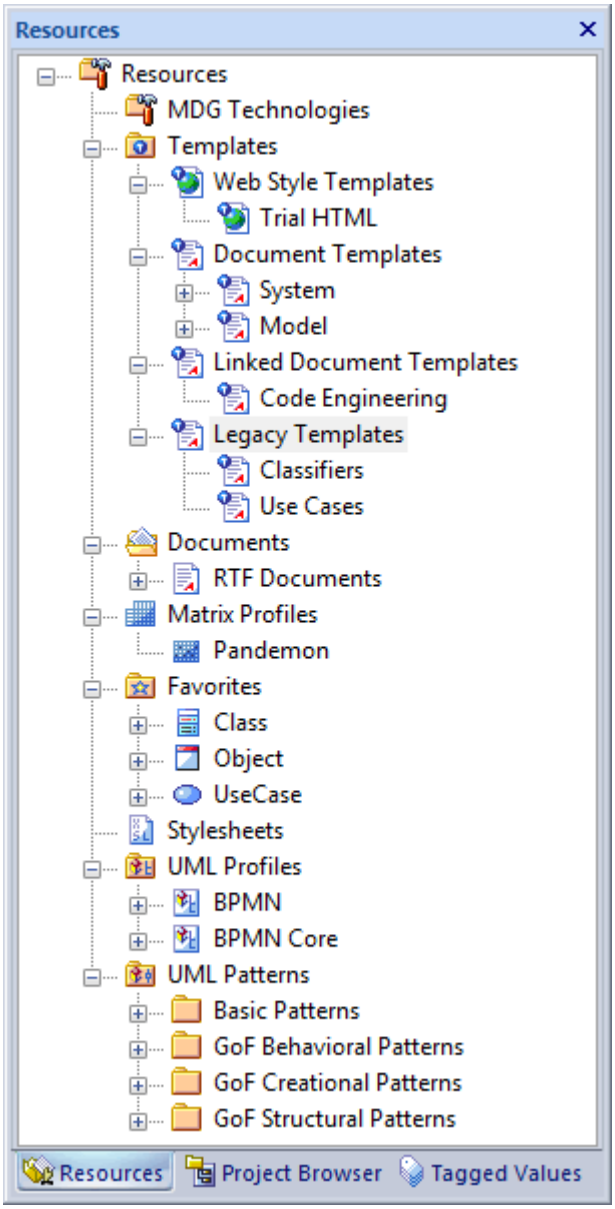
Access: **View | Other Project Tools | Resources**.

The Resources window displays a tree of Technologies, Templates, Documents, UML Profiles and Patterns, commonly-used model elements and Matrix profiles. This view provides useful shortcuts and re-use functions that you can use to add stock elements to the current model, and patterns and elements for additional information.

Tip:

In the Corporate, Business and Software Engineering, Systems Engineering and Ultimate editions of Enterprise Architect, if security is enabled you must have **Configure Resources** permission to maintain Resources window items. See *User Security in UML Models.*

© 1998-2010 Sparx Systems Pty Ltd



- **MDG Technologies**, **UML Profiles** and **UML Patterns** provide a convenient way to insert complex new elements and features without having to retype or reconfigure each element (see *Extending UML With Enterprise Architect*)

  Note:

  From release 7.5 of Enterprise Architect, the method of importing MDG Technologies into the Resources window is available but *not recommended*. However, you might previously have imported Technologies into the Resources window, and these are still available until you specifically delete them (right-click on the Technology and select the **Delete Technology** context menu option).

  You can also synchronize the Tagged Values and constraints for any elements created from a profile element in the Resources window (see *Extending UML With Enterprise Architect*).

- **Templates** provides a range of templates for creating HTML (web) reports, RTF reports in either the legacy report generator or the extended RTF report generator (see *Report Creation in UML Models*), linked documents (see *UML Modeling with Enterprise Architect – UML Modeling Tool*) and MDG Technology reports; you can create, edit, copy and delete your own (model) templates, and view and copy system-supplied or technology-supplied templates using context menu options
- **Documents** provides a shortcut to saved RTF documents (see *Report Creation in UML Models*)

Tip:

To add a document to the shortcut list, select the **Project | Documentation | Rich Text Format (RTF) Report** menu option. Once you have defined your document click on the **Resource Document** button and type in a name. The document name then displays in the Resources window. By right-clicking on the document name you can regenerate documents individually or as a batch, or open them directly from Enterprise Architect. (See the *Resource Documents* topic in *Report Creation in UML Models.*)

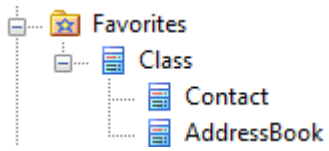
- **Matrix Profiles** provides quick access to saved Relationship Matrix profiles; double-click on a profile to load the matrix with the saved settings and source-target packages (see *UML Modeling with Enterprise Architect – UML Modeling Tool*)
- **Favorites** 145 provides a shortcut to elements that you configure as a shortcut
- **Stylesheets** enables you to import XSL Style sheets, which are then available in the drop-down list on the XML Export dialog.

Note:

If you select a style sheet on export, Enterprise Architect applies that style sheet to the XMI generated before saving to file. This makes it convenient to generate other forms of output from the base XMI content. Combined with UML Profiles, this is a powerful means of extending Enterprise Architect to generate almost any content required.

13.3.1 Favorites

The Resources window contains a *Favorites* folder. Here you can hyperlink to any UML element from the model as a whole, and conveniently drag and drop instances or links to this element into other diagrams. This is particularly useful where certain elements - such as the list of Actors in a system - are re-used again and again, and switching to the *Actors* folder is not convenient. In cases like this, using the Favorites folder makes managing and creating your model much easier.



Modify the Favorites Folder

Add to the Favorites Folder

To add an element to the Favorites folder:

- In a diagram, right-click on the element to add.
- From the context menu select the **Find | Add to Favorites** option.
- Switch back to the Resources window and check the Favorites folder; the new element should be listed in its category within the favorites.

Delete from the Favorites Folder

To delete a favorite:

- Right-click on it within the Favorites folder in the Resources window.
- Select **Delete Favorite** from the context menu.
- Confirm the action by clicking on the **Yes** button.

View Properties of a Favorite

To view a favorite's properties from the Favorites folder:

- Select and right-click on the favorite in the Resources window.
- Select **Element Properties** from the context menu.

13.4 The Source Code Viewer

Access: **View | Other Element Tools | Source Code**.

The Source Code viewer can be used to view any source code you are opening. If a Class is selected, it shows the source code for that Class, provided it has already been generated (see *Code Engineering Using*

© 1998-2010 Sparx Systems Pty Ltd

UML Models). For C++ a second tab displays to show the implementation file.

The Source Code viewer also displays any DDL generated for a selected table in your diagram.

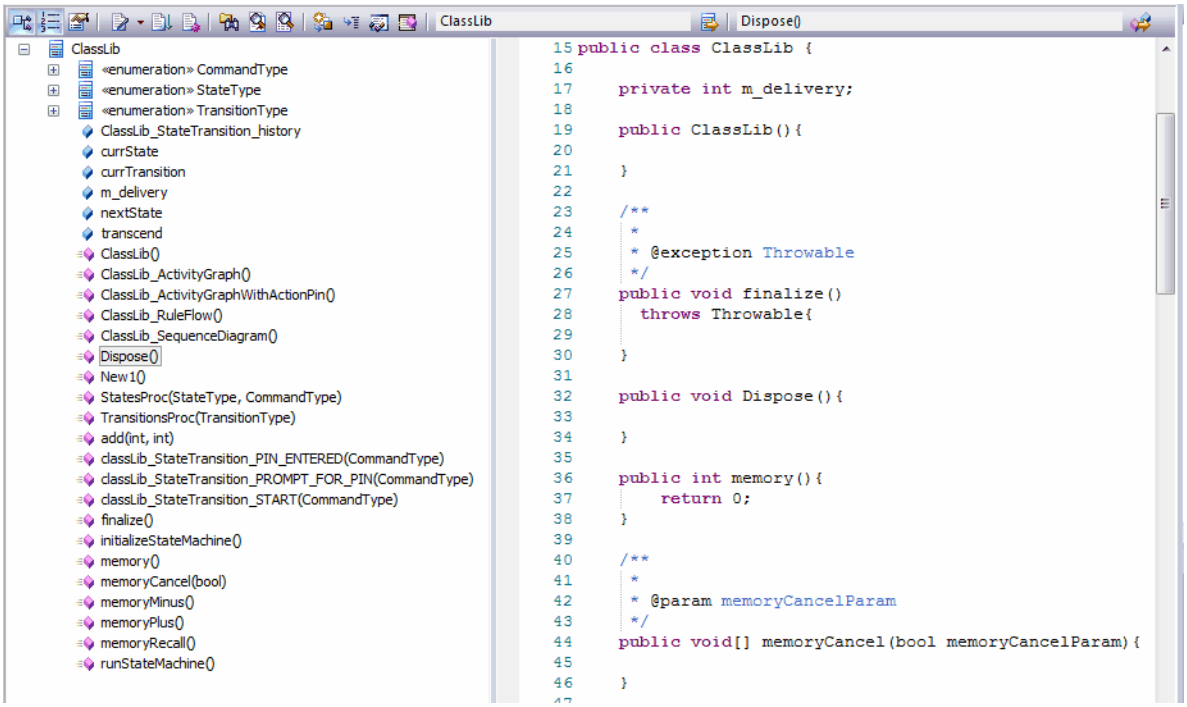
Note:

You view source code for an element by selecting menu options in a number of places, or by pressing either **[Ctrl]+[E]** or **[F12]**. If the element does not have a generation file (that is, code has not been or cannot be generated, such as for a Use Case), Enterprise Architect checks whether the element has a link to either an operation or an attribute of another element. If such a link exists, and that other element has source code, the code for that element displays.

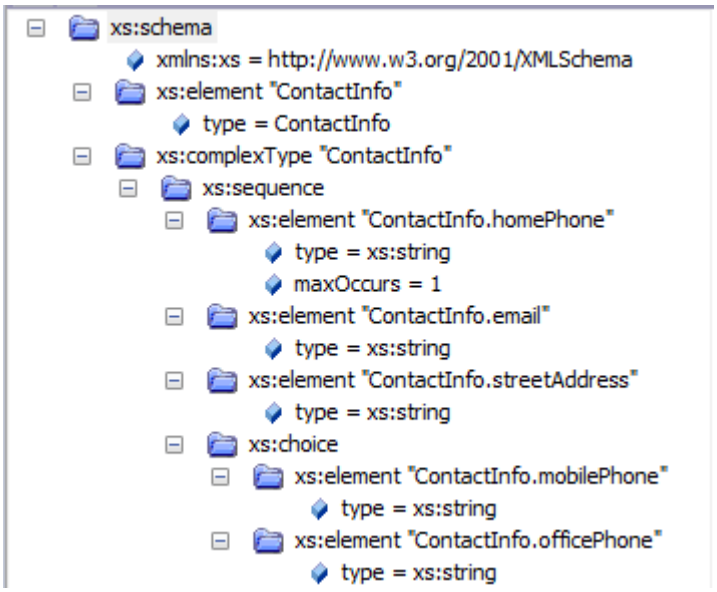
A number of options change the way the Source Code viewer works. They can be altered via the Options dialog (select the **Tools | Options | Source Code Engineering | Code Editors** menu option).

By default the Source Code viewer is set to:

- Parse all opened files, and show a tree of the results
- Show line numbers.



If you are editing an XML file, the structure tree is presented in a folder hierarchy rather than a Class structure hierarchy, as follows:



External Files

If you intend to edit external code, XML and DDL files (that is, code not selected from the Project Browser) use the **File | Open Source File** menu option, or press **[Ctrl]+[Alt]+[O]**.

If you try to close the window or select another file, the editor prompts you to save your changes.

File Parsing

The Source Code viewer parses files for a number of reasons. The first is to enable it to jump to the location in the file at which the currently selected item is found (but not when editing external files).

Additionally, parsing displays a structure tree showing an overview of the file in a similar fashion to the main Project Browser. You can also select anything in that and jump to the appropriate line in the editor.

The viewer cannot parse DDL, and therefore does not show the structure tree for a DDL file.

The Source Code Viewer Toolbar Buttons

The toolbar buttons in the Source Code viewer enable you to edit, view and interact with the code contained in the Source Code viewer. The function of each button is described below:

- **Structure Tree** - shows or hides the element hierarchy panel (the left panel of the Source Code viewer)
- **Line Numbers** - shows or hides the line numbers against the lines of code
- **Source Code Engineering Properties** - displays the Source Code Engineering page of the Options dialog, from which you can configure display and behavior options for source code engineering
- **Editor Functions** - provides quick access to the following functions:
  - **Open Corresponding File** - opens the header or implementation file associated with the currently-open file
  - **Go to Matching Brace** - for a selected opening or closing brace, highlights the corresponding closing or opening brace in the pair
  - **Go to Line** - displays a small dialog on which you select the number of the line to highlight; click on the **OK** button to move the cursor to that line
  - **Cursor History Previous** - the Source Code viewer keeps a history of the previous 50 cursor positions, creating a record when the cursor is moved either more than 10 lines away from its previous position, or in a find-and-replace operation; the menu option moves the cursor to the position in the immediately-previous cursor history record
  - **Cursor History Next** - moves the cursor to the position in the immediately-following cursor history record
  - **Toggle Line Comment** - comments out (//) or re-establishes the code for each full line in which text

© 1998-2010 Sparx Systems Pty Ltd

is highlighted
    - **Toggle Stream Comment** - inserts a stream comment (/* */) at the cursor position or comments out the highlighted characters and lines, or re-establishes the commented text as code
    - **Toggle Whitespace Characters** - shows or hides the spacing characters: --> (tab space) and · (character space)
    - **Toggle EOL Characters** - shows or hides the end-of-line characters: **CR** (carriage return) and **LF** (line feed)
- **Save Source and Resynchronize Class** - saves the source code and resynchronizes the Class
- **Code Templates** - accesses the Code Templates Editor (see *Code Engineering Using UML Models*)
- **Find in Project Browser** - for a selected line of code, highlights the appropriate structure in the Project Browser; if there is more than one possibility the Possible Matches dialog displays, listing the occurrences of the appropriate structure from which you can select the required one
- **Search in Files** - searches for the selected object name in associated files and displays the results of the search on the File Search window (see *Visual Execution Analyzer in Enterprise Architect*)
- **Search in Model** - searches for the selected text throughout the model, and displays the results of the search on the Model Search 121 window.
- **Go to Declaration** - locates the declaration of a symbol in the source code
- **Go to Definition** - locates the definition of a symbol in the source code (applicable to languages where symbols are declared and defined in separate files e.g. C++, Delphi)
- **Autocomplete List** - displays the autocompletion list of possible values; double-click on a value to select it
- **Parameter Information** - when the cursor is between the parentheses of an operation's parameter list, displays the operation's signature, highlighting the current parameter
- **Find Current Class in Project Browser** - displays the name of the currently-selected Class in the code, and highlights that name in the Project Browser; if there is more than one possibility the Possible Matches dialog displays, listing the occurrences of the Class from which you can select the required one
- **Find Member** - displays the name of the currently-selected attribute or method in the code, and highlights that name in the Project Browser; if there is more than one possibility the Possible Matches dialog displays, listing the occurrences of the feature from which you can select the required one.

Context Menu

See the *Code Editor Context Menu* 182 topic.

13.5 The Scripter Window

Notes:

- This facility is available in the Corporate, Business and Software Engineering, Systems Engineering and Ultimate editions.
- If you intend to use the Scripting facility under Crossover/WINE, you must also install Internet Explorer version 6.0 or above.

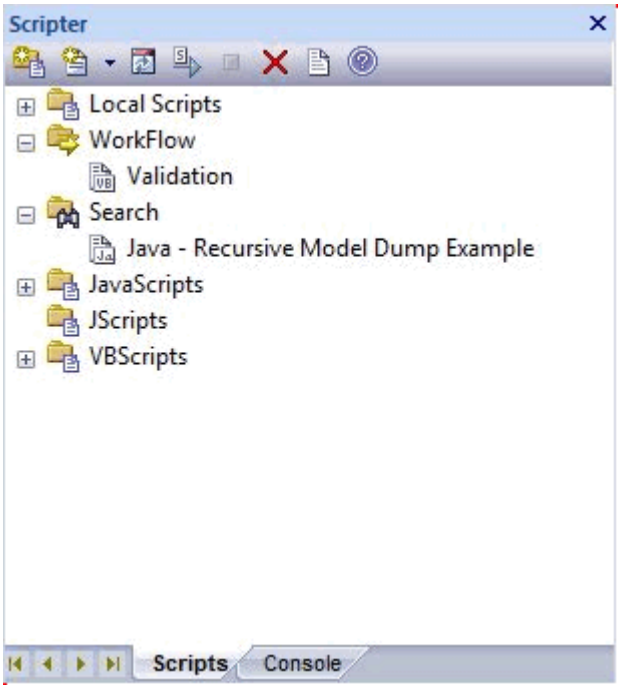
Access: **View | Scripting**.

Scripts executed in Enterprise Architect have access to the currently open model and are a powerful tool for querying and updating the model in situations that would otherwise require you to perform time consuming and repetitive GUI tasks. Enterprise Architect supports management of scripts using the following script engines:

- JavaScript
- Microsoft JScript
- Microsoft VBScript

The management interface for Scripting is the Scripter window, which contains the:

- Script Tree View 149 (Scripts tab), which you use to review, create and edit scripts
- Script Console 152 (Console tab), which you use to operate on an executing script.



Scripts are managed in groups. The first group in the list is always *Local Scripts*, which are available to any model. You cannot create, edit, drag-and-drop or delete these scripts. Local Scripts are files in the Scripts subdirectory of the Enterprise Architect installation - any instance of Enterprise Architect that has a currently open model can see these scripts.

All other groups are *User Scripts*, which you create yourself. A user group can be one of four types 152, each of which applies a template and certain conditions to the scripts you create within that group. User scripts are only visible inside the model in which they were created; the contents of the scripts are stored with the model, although they can be saved to the file system easily using the Script Editor 183.

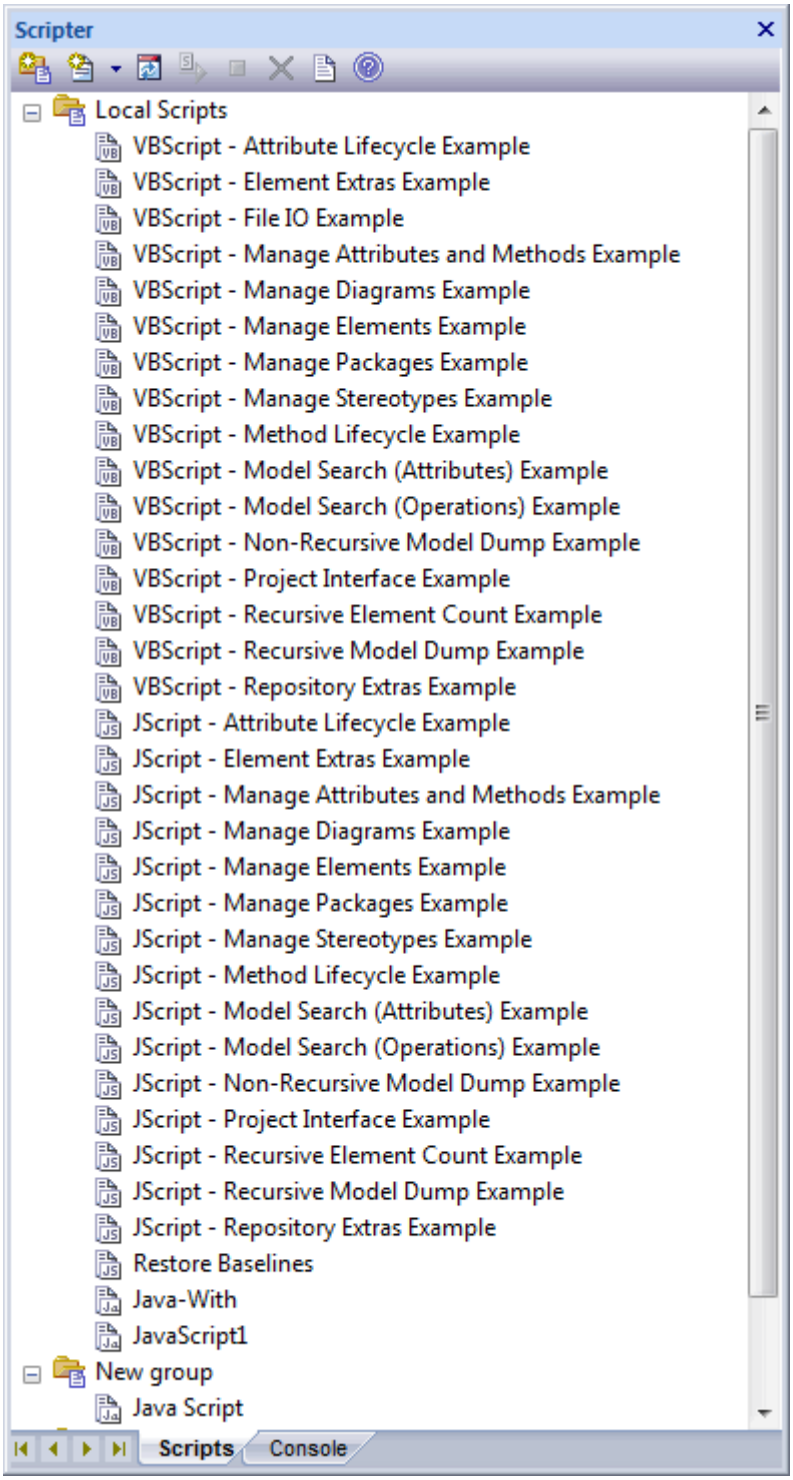
13.5.1 Scripts Tab

Note:

This facility is available in the Corporate, Business and Software Engineering, Systems Engineering and Ultimate editions.

The Scripts tab is composed of a toolbar and a view of all scripts according to group.

© 1998-2010 Sparx Systems Pty Ltd



To execute a script, press **[Ctrl]** while you double-click on the script name.

To write or edit a user script, double-click on the script name to display the Script Editor 183. This usually displays a script template, determined by the user group type as assigned on the Script Group Properties dialog 152.

You can move or copy a script from one *user* scripts folder to another. To:

- *Move* a script, highlight it in the Scripts tab and drag it into the user scripts folder it now belongs to
- *Copy* a script, highlight it in the Scripts tab and press **[Ctrl]** while you drag it into the user scripts folder in which to duplicate it.

The Scripts tab toolbar provides the following buttons:

Icon	Use to
	Create a new script group. The new group is added to the end of the list in the Scripter window, with the '*New group*' text highlighted so that you can type in the group name.
	Create a new script file in the selected script group; displays a short menu of the types of script you can create, namely: • VBScript ( ) • JScript ( ) • JavaScript ( ) The new script is added to the end of the list in the selected group, with the '*New script*' text highlighted so that you can type in the script name.
	Refresh the script tree in the Scripter window.
	Compile and execute the selected script. The output from the script is written to the Script tab of the Output window, which you display using the **View Script Output** button 151.
	Stop an executing script. The icon is disabled if no script is executing.
	Delete a *script* from the model. You cannot use this icon to delete a script *group* (see the Context Menu 151 section, below), scripts in the Local Scripts group, or a script that is executing. **Important:** The system prompts you to confirm the deletion only if the **Confirm Deletes** checkbox is selected in the Project Browser panel of the General page 190 of the Options dialog. If this option is not selected, no prompt is displayed. Script deletion is permanent - scripts cannot be recovered.
	Display the Output window with the results of the most recently executed script displayed in the Script tab.

Context Menus

The script groups and their scripts also have context menus that provide some or all of the following options:

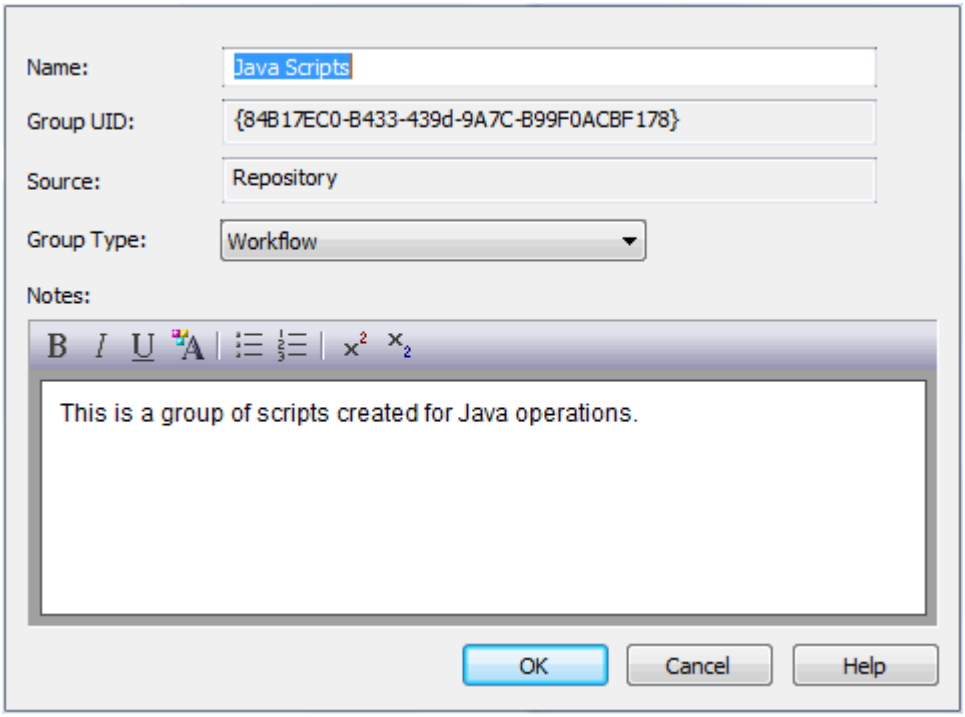
- **Group Properties** - to display or edit script group properties in the Script Group Properties 152 dialog
- **Run Script** - to execute the selected script
- **Rename Script** - to change the name of the selected group or script
- **New VBScript/JScript/JavaScript** - add a new script to the selected user group
- **Import Workflow Script** - to display the Browser dialog through which you locate and select a workflow script source (.vbs) file to import into the *Workflow* script folder
- **Delete Group/Script** - to delete the selected user group or script.

Note:

If you select to delete a script group that contains scripts, the system always prompts you to confirm the action regardless of any system settings for delete operations. Be certain that you intend to delete the group and its scripts before confirming the deletion - deletion of script groups and scripts is permanent.

© 1998-2010 Sparx Systems Pty Ltd

13.5.1.1 Script Group Properties



The Script Group Properties dialog enables you to set the following properties of the script group:

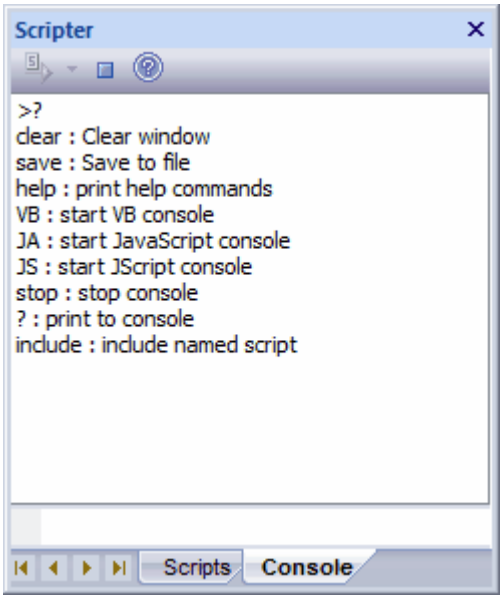
- **Name** - The name of the script group; the dialog also displays the automatically-assigned GUID of the group
- **Group Type -** The type of scripts contained in the group. This can be one of:
  - **Normal** - ( ) Ordinary scripts
  - **Project Browser** - ( ) Scripts that are listed in and can be executed from the Project Browser Script context menu 25
  - **Workflow** - ( ) Scripts executed by Enterprise Architect's workflow engine; you can create only VB scripts of this type (see *User Security in UML Models*)
  - **Search** - ( ) Scripts that can be executed as model searches 121; these scripts are listed in the **Search** field of the Model Search window.
- **Notes** - Your own notes on the script group.

13.5.2 Console Tab

Note:

This facility is available in the Corporate, Business and Software Engineering, Systems Engineering and Ultimate editions.

The script console is a tab of the Scripter window. It is a command line interpreter with which you can quickly enable a script engine and enter commands to act on the script.



You type the commands in the field at the bottom of the tab; when you press the **[Enter]** key, the script console executes the commands and displays any output immediately.

You can input two types of command:

- Console commands
- Script commands.

Console Commands

Console commands are preceded by the **!** character and instruct the console to perform an action. The available console commands are listed below; to list these commands on the Console tab itself (as shown above) type**?** in the console field (without the preceding ! character) .

- **c(lear)** - clears the console display
- **sa(ve)** - saves the console display to a file
- **h(elp)** - prints a list of commands, as for ?
- **VB** - opens a VBScript console
- **JA** - opens a JavaScript console
- **JS** - opens a JScript console
- **st(op)** - closes any script running console
- **i(nclude)** ***name*** - executes the named script item; *name* is of the format *GroupName.ScriptName* (spaces are allowed in names)
- **?** - (without the !) lists commands
- **?*name*** - Outputs the value of a variable *name* (only if a script console is opened).

Script Commands

A script command is script code that depends on the script engine. Script commands can be executed only once a script console has been created.

Examples:

The following lines, entered into the console, create a *VBScript* console and then execute the script *MyScript* in the user group *MyGroup.*

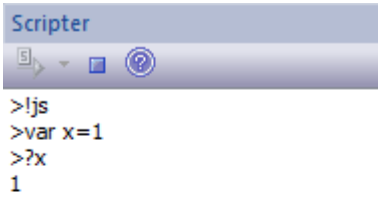
```
>!VB
>!i MyGroup.MyScript
```

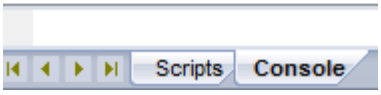
The following lines, entered into the console, create a *JScript* console and then create a variable called **x** with the value **1**.

```
>!JS
>var x = 1
```

The following diagram shows the result of entering the above JScript example. Remember that you can use **?<variable name>** to get the current value of any item you have created during the console session.

© 1998-2010 Sparx Systems Pty Ltd





Console Tab Toolbar

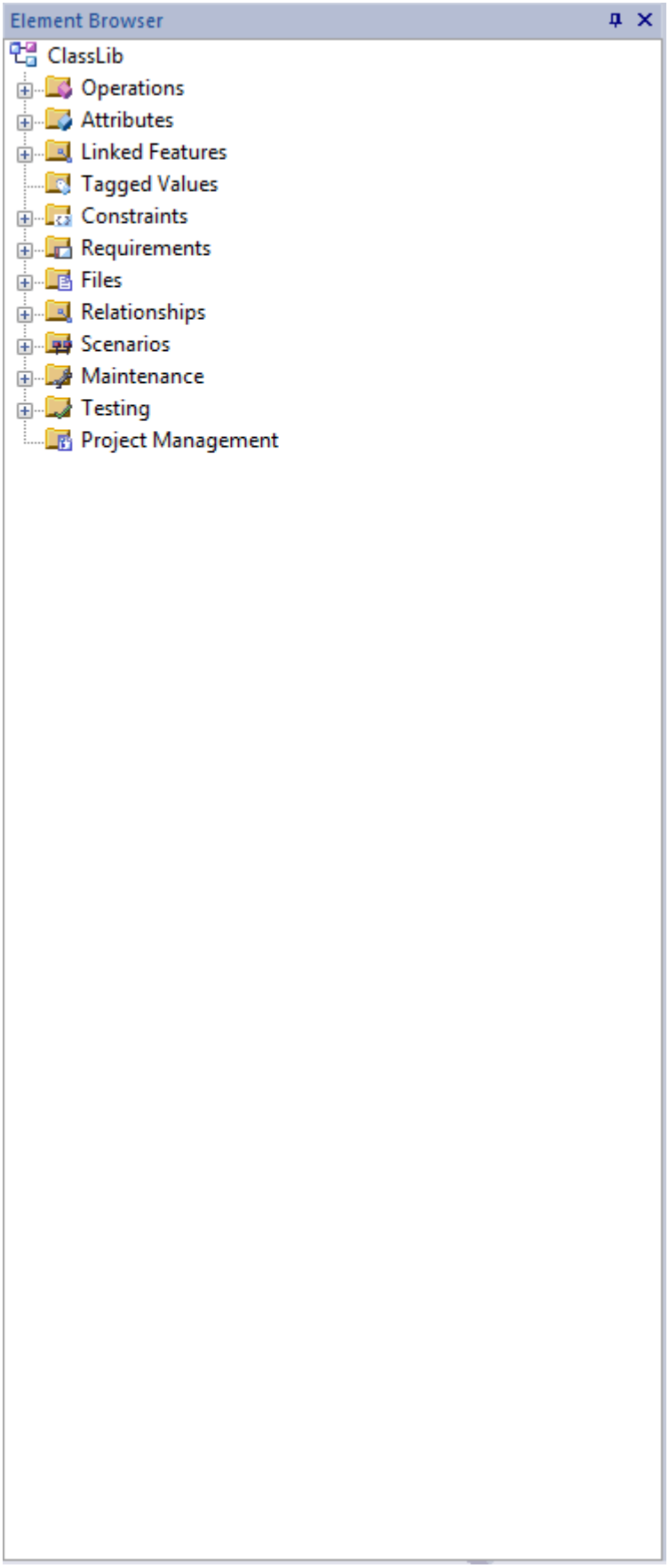
The Console tab has two operations available through the toolbar:

- Open Console ( ) - click on the down-arrow and select to open a VBScript console, JScript console or JavaScript console
- Stop Script ( ) - click to stop an executing script and close the current console.

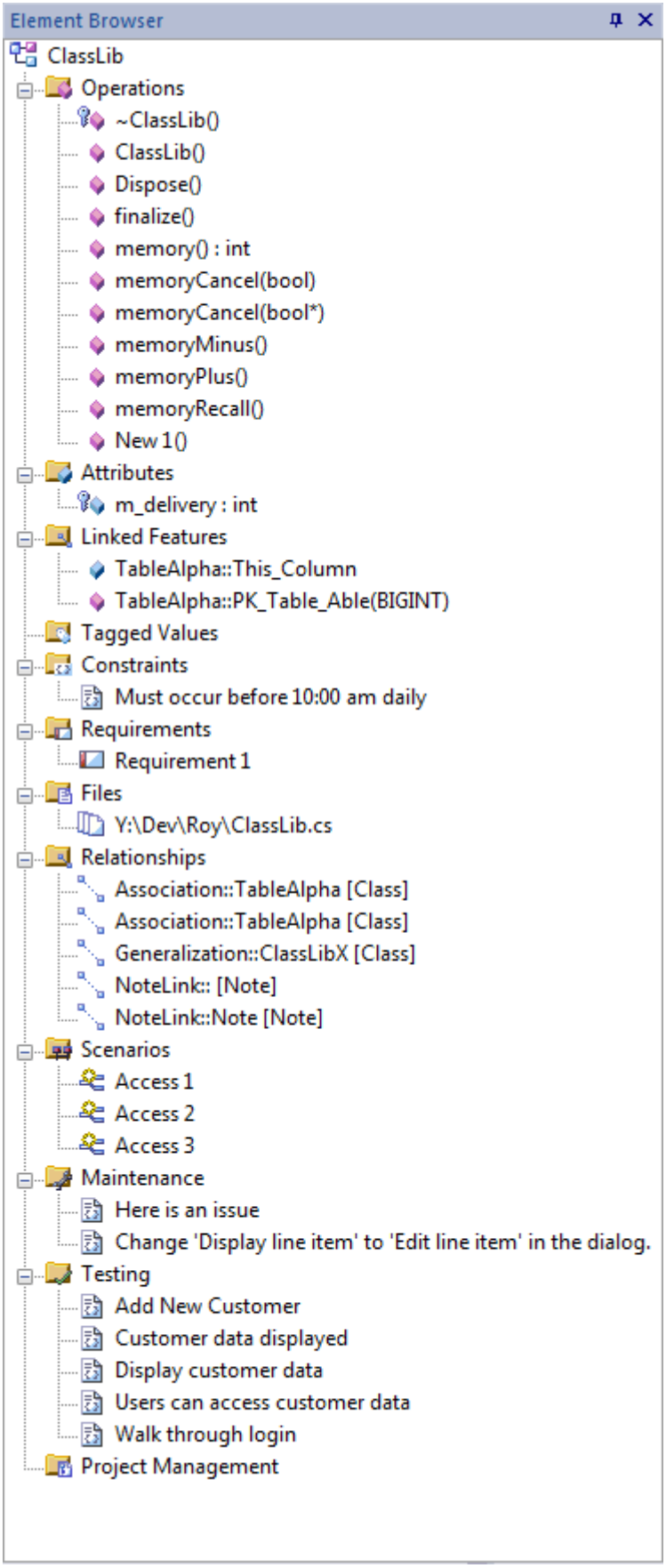
13.6 The Element Browser

Access: **View | Element Browser**, or right-click on the **Main Menu** bar and select the **Element Browser** context menu option.

The Element Browser window lists a range of added-on properties of the selected element, as shown below both collapsed and fully expanded.



© 1998-2010 Sparx Systems Pty Ltd



The following properties are listed, where they are present in the element:

- Operations (see the *Work With Elements* section of *UML Modeling With Enterprise Architect - UML Modeling Tool*)
- Attributes (see the *Work With Elements* section of *UML Modeling With Enterprise Architect - UML Modeling Tool*)
- Linked Features (Linked Operations and Attributes) (see the *Work With Connectors* section of *UML Modeling With Enterprise Architect - UML Modeling Tool*)
- Tagged Values 162
- Constraints (see the *Work With Elements* section of *UML Modeling With Enterprise Architect - UML Modeling Tool*)
- Internal Requirements (Responsibilities) (see the *Work With Elements* section of *UML Modeling With Enterprise Architect - UML Modeling Tool*)
- Attached Files (see the *Work With Elements* section of *UML Modeling With Enterprise Architect - UML Modeling Tool*)
- Relationships (see the *Work With Elements* section of *UML Modeling With Enterprise Architect - UML Modeling Tool*)
- Scenarios (see the *Work With Elements* section of *UML Modeling With Enterprise Architect - UML Modeling Tool*)
- Maintenance Items (see *Project Management With Enterprise Architect*)
- Testing Items (see *Project Management With Enterprise Architect*)
- Project Management Items. (see *Project Management With Enterprise Architect*)

Notes:

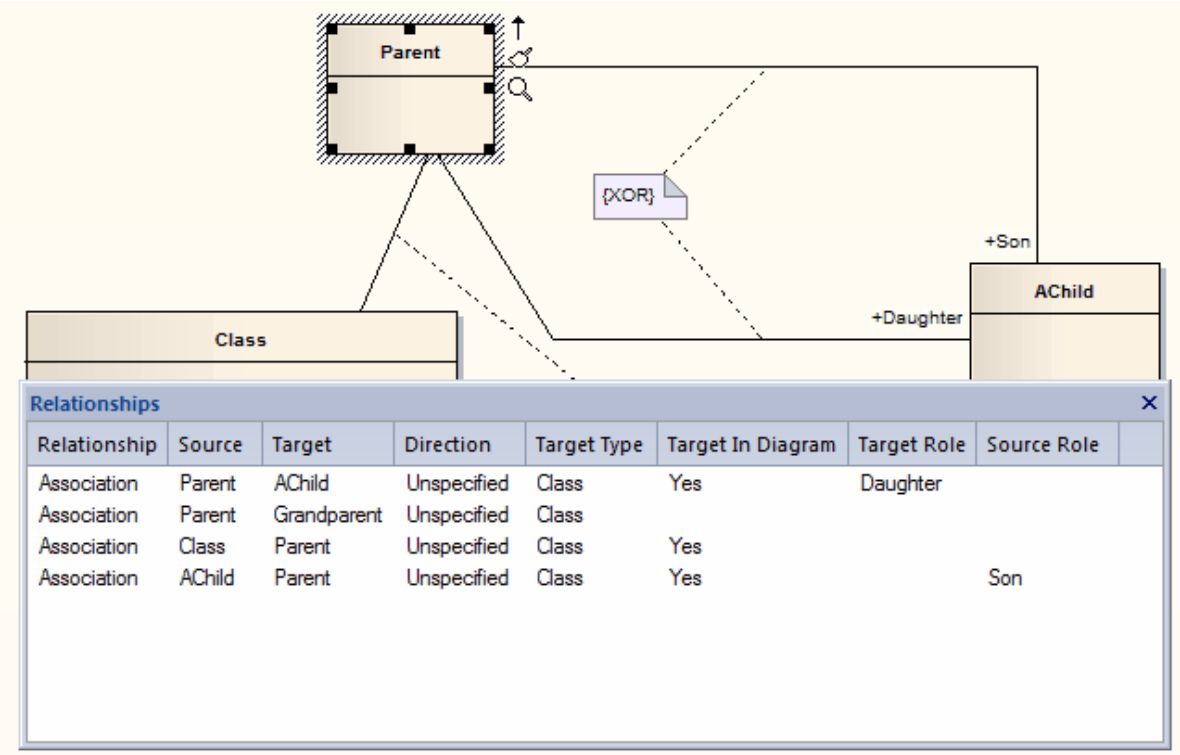
- If you double-click on the element name at the top of the dialog (the root node) the Properties dialog for the element displays, at the General tab.
- If you right-click on a folder name, the **Edit <object>** context menu option displays. When you select this option, the appropriate window or dialog displays, or the element Properties dialog displays the appropriate tab, to enable you to update the items in the folder.
- If you double-click on an item within the *Requirements*, *Scenarios* or *Constraints* folders, the docked window or view 158 displays with the focus on the selected item.
- If you double-click on an item within the *Relationships* folder, the relationship Properties dialog displays for that relationship.
- If you double-click on an item within the *Files* folder, the file opens either on a separate tab in the Diagram View workspace (if the file can be opened within Enterprise Architect) or in the default Windows viewer/ editor for the file type (if the file cannot be opened within Enterprise Architect).
- If you double-click on an operation or attribute in the *Operations* or *Attributes* folders, the appropriate Properties dialog displays.
- If you right-click on an attribute or operation, whether in the *Attributes* or *Operations* folder or in the *Linked Features* folder, a context menu displays that enables you to display the source code; alternatively, click on the attribute or operation and press **[Ctrl]+[E]**, or - in the *Linked Features* folder - double-click on the attribute or operation.
- The source code viewer in which the source code displays depends on which editor you select as the default, either for the project as a whole or for a specific programming language (see *Code Engineering Using UML Models*). If you select the Enterprise Architect internal editor, the code displays in the Source Code Viewer 145 with the cursor positioned on the selected feature.
- The right-click context menu for an operation also provides options to set a number of types of recording marker (see *Visual Execution Analyzer In Enterprise Architect*).

13.7 The Relationships Window

Access: **View | Other Element Tools | Relationships**.

The Relationships window displays all connectors between the currently selected element and other elements. This provides a quick overview of an element's relationships in the model.

© 1998-2010 Sparx Systems Pty Ltd



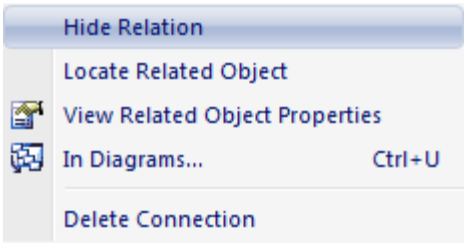
Relationship	Source	Target	Direction	Target Type	Target In Diagram	Target Role	Source Role
Association	Parent	AChild	Unspecified	Class	Yes	Daughter	
Association	Parent	Grandparent	Unspecified	Class			
Association	Class	Parent	Unspecified	Class	Yes		
Association	AChild	Parent	Unspecified	Class	Yes		Son

For each connector, the connector type and target element are displayed. If a 'Yes' appears in the **Target in Diagram** column, the target element is visible in the currently loaded diagram. This is useful when you are dragging related elements from the relationships list onto the current diagram.

Double-click on a connector in the list to open the <connector type> Properties dialog, where you can edit the connector attributes. Right-click on a connector to open the context menu.

You can locate the related element, view the related element properties or delete the connector. You can also hide certain connectors from appearing in diagrams, and show hidden connectors (first example of the menu, below).

If an element is not visible in the current diagram, the context menu has an option to place the selected element in the current diagram (second example of the menu, below). This is useful when you are building a picture of what an element interacts with, especially when reverse engineering an existing code base.



Tip:

In the Corporate, Business and Software Engineering, Systems Engineering and Ultimate editions of Enterprise Architect, with security on, the diagram and the source and target elements must be free for editing before some of these options are available for use (see *User Security in UML Models*).

13.8 The Scenarios & Requirements Window

Access: **View | Scenarios & Requirements**.

The Scenarios & Requirements window provides a convenient way to quickly add, view, edit and delete rules applied to an element. The window shows details of the entities that impose such rules or restrictions on the element, namely:

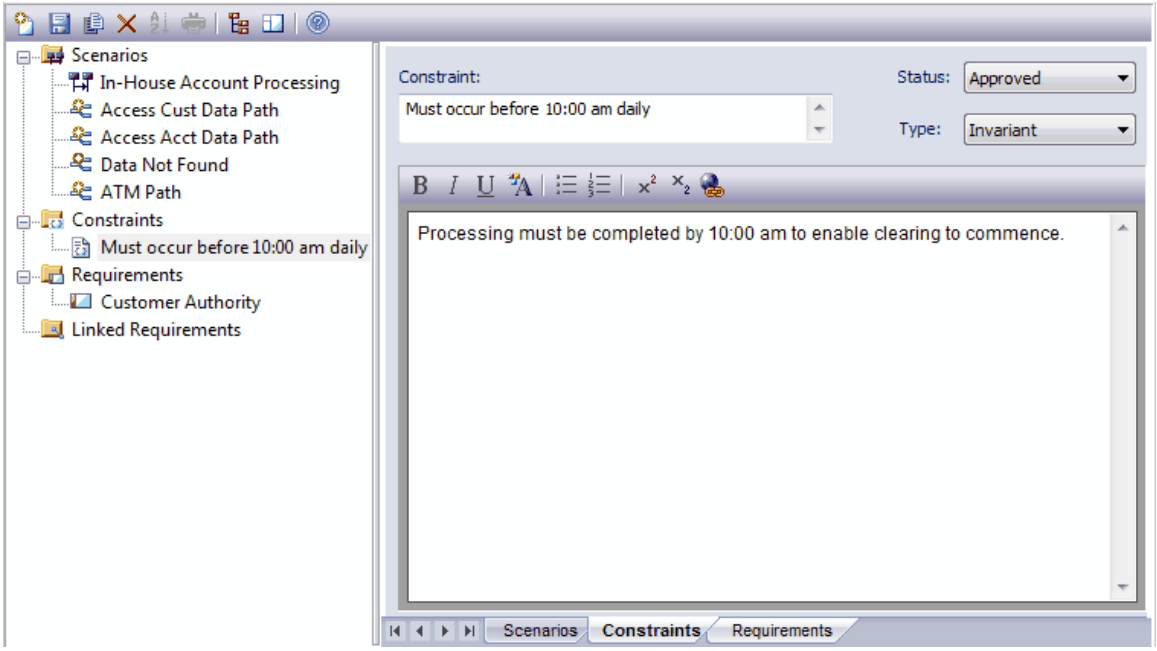
- The element's internal responsibilities or requirements
- The element's internal constraints (not external *Constraint* notes - see *The UML Dictionary*)
- The element's scenarios.

The Scenarios & Requirements window is typically used to examine Use Case and Test Case elements, and any other elements that realize an external Requirement.

For convenience, you can display the window as either a dockable window around the edge of your workspace, or as a view in the center of your workspace (in which the Scenarios, Constraints and Requirements are shown on separate tabs). Use the icon in the window toolbar to toggle between these display options.

To review an internal requirement, constraint or scenario for an element:

1. Select the element in the Project Browser or diagram and either press **[Ctrl]+[Shift]+[3]** or select the **View | Scenarios & Requirements** menu option; the Scenarios & Requirements window displays.



2. Either:
   - Click on the required item in the list panel on the left of the window, or
   - If the Element Browser 154 is not already displayed, click on the icon and select the required item from the *Constraints*, *Requirements* or *Scenarios* folder.

   The appropriate screen displays, with the details of the selected item in the fields.
3. The toolbar icons, from left to right, enable you to :
   - Add a new rule to the current screen (click on the appropriate folder to create an item of a different type)
   - Save the new or edited item
   - Save the current (edited) item as a new item
   - Delete the current item
   - Sort the contents of the *selected* folder into alphabetical order
   - *(Print icon unavailable)*
   - Display the Element Browser window, or highlight the current item in the Element Browser window
   - Switch between a docked window display and a workspace view display.

   You can also add or edit formatted notes in the **Notes** field, using the Rich Text Notes 104 toolbar at the top of the field.

The list panel also provides a context menu that provides options for adding a new item to a folder, deleting the selected item or, for a requirement, converting an internal responsibility into an external Requirement element (see *Requirements Management*).

© 1998-2010 Sparx Systems Pty Ltd

Click on these links for information on the fields of the Scenarios, Constraints and Requirements tabs (see the *Working With Elements* section of *UML Modeling With Enterprise Architect - UML Modeling Tool*).

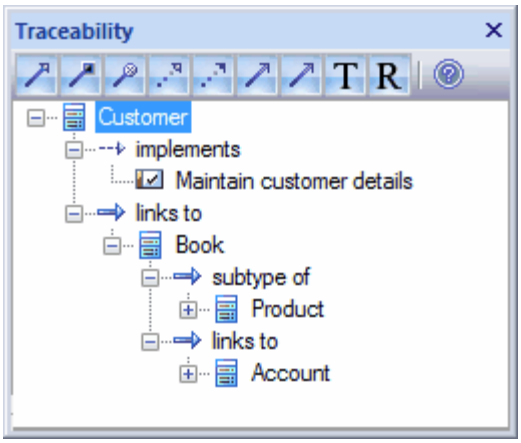
13.9 The Traceability Window

Access: **View | Traceability**.

The Traceability window shows a mini picture of the composition of the current element with respect to other elements.

This information is derived from relationships with child or related Classes. Relationships shown in the hierarchy include Aggregation, Inheritance and Dependency; embedded elements are also shown. This helps extend the picture of where an element exists in the model space.

Display of each type of relationship is optional, and can be toggled using the window toolbar. Roll the cursor over each toolbar icon to display the types of relationship that the icon filters. For example, **T** filters the hierarchy to display Transformation Dependencies (see the *MDA Transformations User Guide*), and **R** filters for Custom References (see the *Working With Elements* section of *UML Modeling With Enterprise Architect - UML Modeling Tool*).



If you open a diagram and click on the diagram background, the Traceability window lists all the elements in the diagram. As above, you can expand the display for each individual element to show the relationships and related elements for that element. This is useful, especially in large and complex diagrams, for exposing threads through the diagram and indicating what might be impacted by changing or deleting the element or a connector.

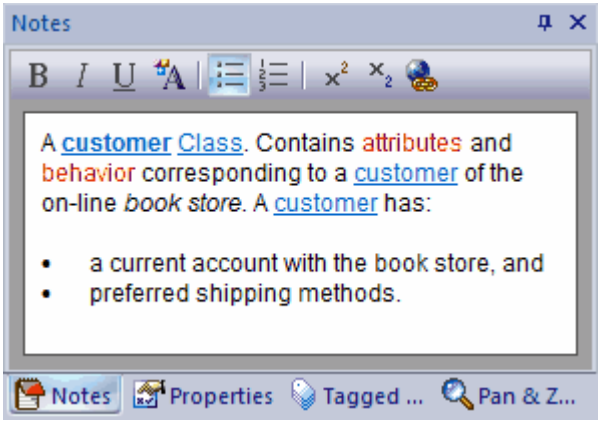
13.10 The Notes Window

Access: **View | Notes**.

You use the Notes window to view and edit the documentation (notes) associated with elements, diagrams, attributes, operations and connectors, either from a diagram (for both elements and connectors) or from the Project Browser (elements only). When you select an element, the note displayed changes to reflect the current selection. If you make changes to notes in this window, they are saved.

Notes are the main documentation feature you use to describe an element or connector. In the documentation that Enterprise Architect generates, notes feature prominently.

If you want to display the Notes information in a more readable layout, you can resize the dialog. You can also format the notes text using the Rich Text Notes 104 toolbar at the top of the Notes window.



You can cut, copy, paste and delete text in the Notes window, or in any **Notes** or **Description** field that shows the Rich Text Notes toolbar, using a right-click context menu. From the context menu, you can also select an option to *spell-check* a highlighted word.

Tip:

You can also edit notes by double-clicking on an element or connector in a diagram or in the Project Browser, to open the Properties dialog. Any formatting changes made in one display are reflected in the other.

Note:

On the Testing, Maintenance and Project Management windows, any descriptive, history, input or results text for a selected item is also displayed in the Notes window. You *cannot* edit this text in the Notes window.

Glossary Entries

The Notes window or field also enables you to create a Project Glossary entry from text you have highlighted in the window or field (see *Project Management With Enterprise Architect*). To create the Glossary entry, follow the steps below:

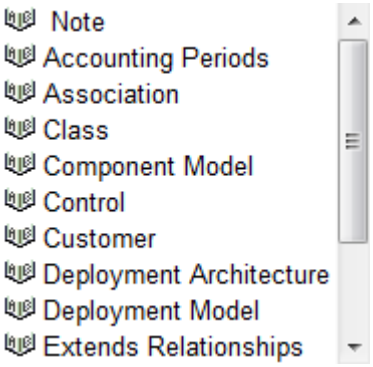
1. Highlight the notes text to use as the Glossary definition (if suitable text is available), and press **[Ctrl] +[C]** to copy it.
2. Highlight the text to use as the Glossary term, and right-click on it to display the context menu.
3. Select the **Create | Glossary Definition** menu option. The Glossary Detail dialog displays, with the selected term in the **Term** field.
4. If you have copied some definition text, paste it into the **Meaning** field. Otherwise type a suitable definition of the term in this field.
5. In the **Type** field, select the appropriate term type.
6. Click on the **Apply** button to save the new Glossary definition.

The term displays in the Notes text as a roll-over hyperlink (as shown in the above screen illustration) which, when you move the cursor over it, displays the Glossary definition of the term.

Having created a glossary definition anywhere else in the model, you can insert the glossary term in the text of the Notes window (or Notes panel of a dialog) as a rollover hyperlink to the definition. To do this:

1. In the Notes dialog, move the cursor to the point in the text at which to insert the glossary term.
2. Press **[Ctrl]+[Space]**. The glossary term selection list displays.

© 1998-2010 Sparx Systems Pty Ltd



3. Double-click on the term to insert in the Notes text. The term is inserted as a rollover hyperlink to the definition.

13.11 The Tagged Values Window

Access: **View | Tagged Values**, or select the Tagged Values tab of a Properties 163 dialog.

What is a Tagged Value?

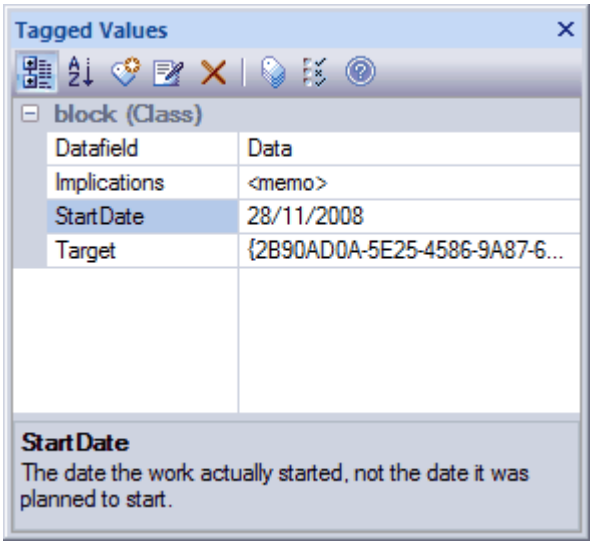
A *Tagged Value*, strictly, is the *value* of a property of a modeling item 163, the property being called a *tag*. For example, a Class element called *Person* might have a tag called **Age** with the Tagged Value of **42**. More loosely, the combination of tag and value can be referred to as a Tagged Value.

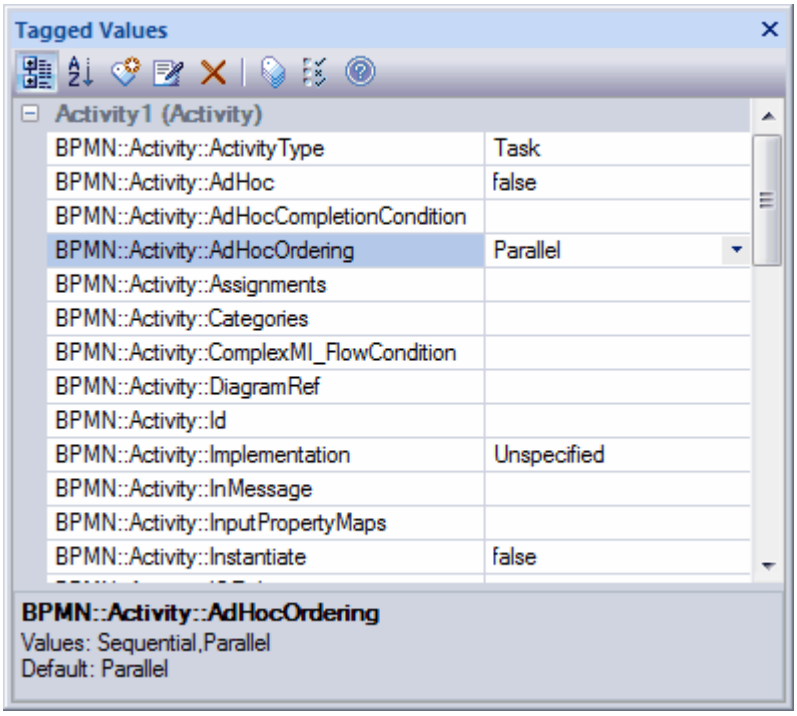
A *Tagged Value Type* is a group of parameters that define and/or limit the possible values of a tag and, in many instances, how a specific value is assigned to the tag (see the *Reference Data* section of *UML Model Management*). For example, the tag **Age** might have a Tagged Value Type of **Integer**, so the user simply types in a numeric value. Alternatively, the type could be **Spin**, with lower and upper limits of, say, **20** and **120**, so the user sets a value by clicking on arrows in the field to increment or decrement the value within the limits of 20 and 120.

The Tagged Values Window

The Tagged Values window is used to view and modify Tagged Values for the currently selected modeling item, either in the current diagram or in the Project Browser.

The Tagged Values window is, by default, set to hide fully qualified values (which show exactly where the Tagged Value came from) and duplicate values, as in the first window below. If you prefer, you can change the settings to show duplicate values 166 and fully-qualified values, as in the second window below:





Note:

Fully qualified Tagged Values can be displayed only if the Tagged Value was created in Enterprise Architect release 7.1 or later. You cannot display the fully qualified path for Tagged Values from earlier releases.

The Tagged Values window is a dockable window. You can use it to perform the following actions:

- Assign a Tagged Value to an Item 164
- Modify Tagged Values 164
- Assign Notes to a Tagged Value 165.

A Technology Developer can also create new structured Tagged Values, reference data Tagged Values and custom Tagged Values from predefined Tagged Value Types, as described in *SDK for Enterprise Architect.*

Model Elements and Features with Tagged Values

The following model components can use the Tagged Values window as a convenient way to quickly view and modify Tagged Values:

Component	Description
Elements	Elements display their own Tagged Values along with any inherited values.
Object Instances	Object Instances display owned tags and those obtained from their classifier.
Ports and Parts	Ports and parts display information similar to objects and display Port/Part 'Type' instead of a classifier. Tags are included for all parents and other structures of the Ports type.
Attributes	Include owned Tagged Values and those received from attribute type classifiers, with the inclusion of any inherited ones.
Operations	Owned properties only.
Connectors	Owned properties only.

When over-riding an inherited property, Enterprise Architect copies the tag from the parent down to the child element and sets the new value, leaving the original tag unchanged.

To edit Tagged Values, use the Tagged Values toolbar, as described below.

© 1998-2010 Sparx Systems Pty Ltd

Tagged Values Toolbar Buttons

The buttons in the Tagged Values toolbar enable you to add, edit, sort, delete and arrange the Tagged Values of model features.

From left to right, the button functions are as follows:

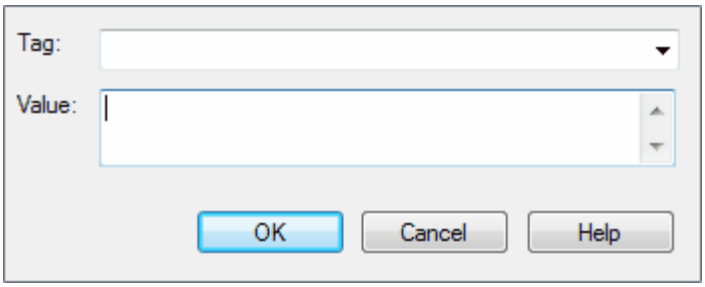
- The **Show in compartments** button displays the Tagged Values in element compartments on diagrams
- The **Sort and Show Alphabetically** button sorts the current Tagged Values for the element alphabetically
- The **New Tagged Value** button adds a new tag, to which you assign a value
- The **Edit Tagged Value Notes** button enables you to create notes that explain the purpose of the Tagged Value
- The **Delete Tagged Value** button removes the currently selected Tagged Value
- The **Default Tagged Value Types** button enables quick access to tag definitions created in the **Configuration** menu
- The **Tagged Value Options** button enables you to show or hide the fully qualified paths for the Tagged Values in the window, and to show duplicate Tagged Values
- The **Help** button displays help relating to use of the Tagged Values window.

13.11.1 Assign a Tagged Value to an Item

You can assign Tagged Values to several model features, as listed in the *Model Elements and Features with Tagged Values* 163 topic.

To add a Tagged Value follow the steps below:

1. If necessary, create user-defined tags using a predefined Tagged Value Type (as described in *SDK for Enterprise Architect*).
2. Select the model feature to associate with the defined Tagged Value.
3. Ensure that the Tagged Values window is visible (select the **View | Tagged Values** menu option, or press **[Ctrl]**+**[Shift]**+**[6]**).
4. Either click on the **New Tags** button or press **[Ctrl]**+**[N]**. The Tagged Value dialog displays.



5. In the **Tag** field, type the tag name or click on the drop-down arrow and select the appropriate tag to assign to the item.

Note:

Direct entry of *predefined* Tagged Values is only available for predefined tags of type **string**.

6. If appropriate, type a specific value for the tag in the **Value** field.
7. To confirm selection of the Tagged Value, click on the **OK** button.

Modify Tagged Values with the Tagged Values Window

Once a Tagged Value has been assigned to the model feature it is possible to edit the values from the Tagged Values window. To edit the Tagged Values follow the steps below:

1. Click on the **View | Tagged Values** menu option, or press **[Ctrl]**+**[Shift]+[6]**. The Tagged Values window displays.
2. Click on the model feature for which to edit the Tagged Values. The window shows all of the tags for the

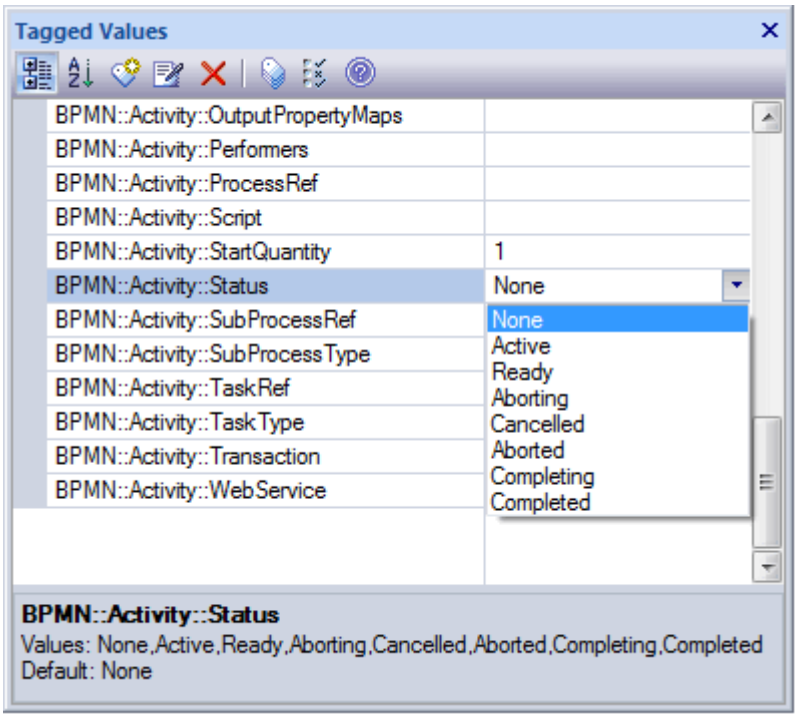
selected feature, each with their current value.

3. Edit the fields as appropriate. The information entered can only reflect the value types that have been defined by the tag's Tagged Value Type.

There are four types of value field for a Tagged Value:

- 'Open' fields, in which you can type any appropriate value
- 'Drop-down list' fields, where you click on the drop-down arrow to select from a discrete list of possible values such as **M** or **F**, or **Win**, **Lose** or **Draw**
- 'Spin' fields, where you click on up or down arrows in the field to increase or decrease the value within certain limits
- 'Further detail' fields, where you click on an ellipsis (**[...]**) in the field to display a dialog in which you enter information (such as notes) or indicate a source of further information (such as a classifier - see the *Working With Elements* section of *UML Modeling With Enterprise Architect - UML Modeling Tool*).

The example below shows a value being modified, using a drop-down list.



Note:

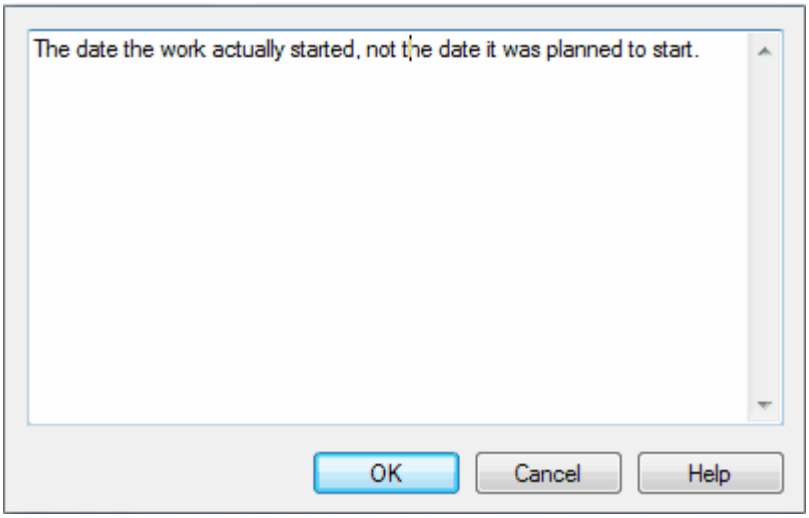
To override a Tagged Value defined in a parent element, edit the value in the from <parentname> compartment of the Tagged Values window. Once this has been done the tag is moved into the selected element's Tagged Values; this does not affect the Tagged Values defined in the parent element.

13.11.2 Assign Notes to a Tagged Value

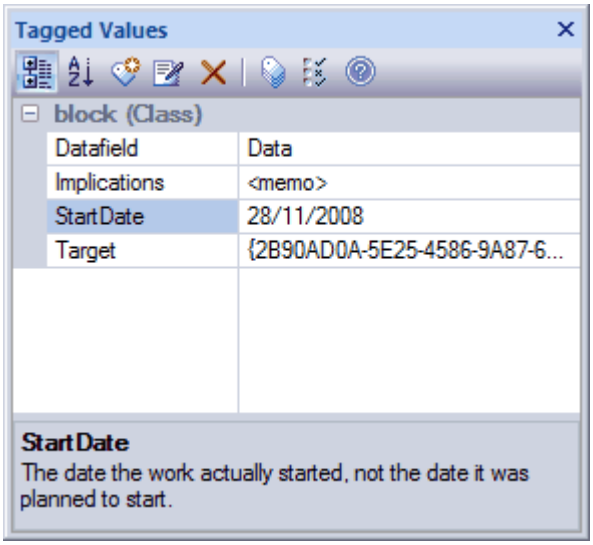
Once the Tagged Value has been assigned to a model feature 163, it is possible to add information and notes describing the Tagged Value to the information property of the Tagged Value. To facilitate this from the Tagged Values window, follow the steps below:

1. Click on the **View | Tagged Values** menu option, or press **[Ctrl]+[Shift]+[6]**. The Tagged Values window displays.
2. Click on the model feature for which to edit the Tagged Values; its Tagged Values display in the Tagged Values window.
3. Click on the Tagged Value to add information to.
4. Click on the **Edit Tagged Value Notes** button or press **[Ctrl]+[E]**. The Tagged Value Note dialog displays.

© 1998-2010 Sparx Systems Pty Ltd



5. In the **Note** field, type the information relating to the Tagged Value, then click on the **OK** button. The information is displayed in the lower portion of the Tagged Values dockable window whenever the Tagged Value is selected.



13.11.3 Show Duplicate Tags

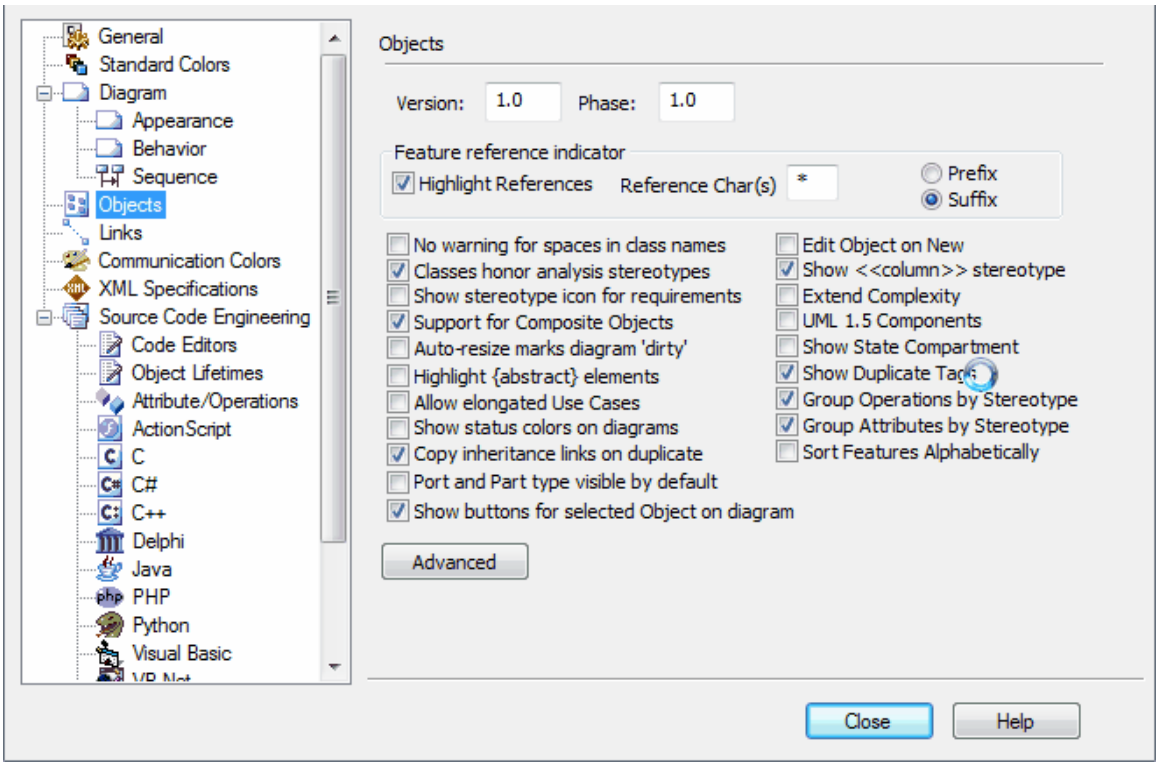
Tagged Values are by default set to hide duplicate values. This setting is used to facilitate inherited and overridden tag names.

To set the Tagged Values window to show duplicate values, follow the steps below:

1. On the Tagged Values window toolbar, click on the **Options** icon.
2. Select the **Show Duplicate Tags** context menu option.

Alternatively:

1. Select the **Tools | Options** menu option. The Options dialog displays.
2. From the hierarchical tree, select the **Objects** item.



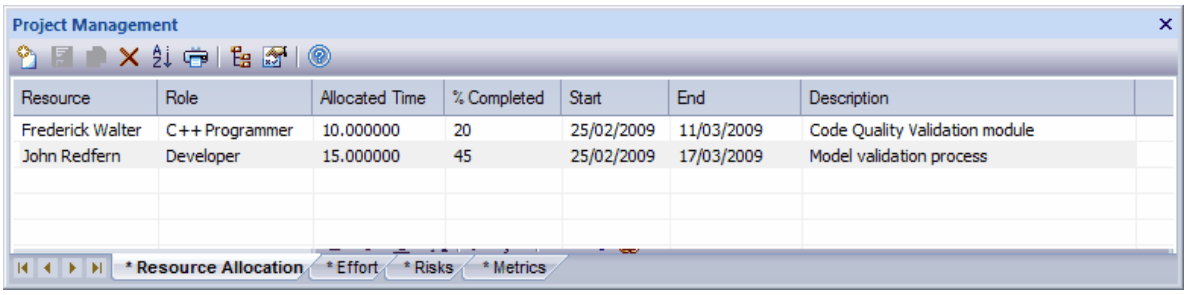
3. Select the **Show Duplicate Tags** checkbox.

In either procedure, to hide duplicate values again deselect the option or check box.

13.12 The Project Management Window

Access: **View | Other Element Tools | Project Management**.

The Project Management window enables you to input the resources, effort, risks and metrics that can be added to elements contained in the model.



Click on an element in the Project Browser 19 to display project management information for that element in the Project Management window.

Right-click on the list to view the context menu, which enables you to add and delete list items.

For more information, see *Project Management with Enterprise Architect*.

Toolbar

These buttons have the following functions (in order as shown on the toolbar):

- **New**: Create new item
- **Save**: Save changes to an item

© 1998-2010 Sparx Systems Pty Ltd

- **Save As New**: Enables you to duplicate an existing entry. You must change an item's Role for this to become enabled
- **Delete**: Delete an item from the list
- **Sort**: Sort Items in the list into alphabetical order
- **Print**: Print item data from the list
- **Browse Element**: Display the Element Browser 154 window for the selected element, to list and select the project management items for the element
- **Show/Hide Details**: Swap between detailed and summary new window styles
- **Help**: Show help contents for this window.

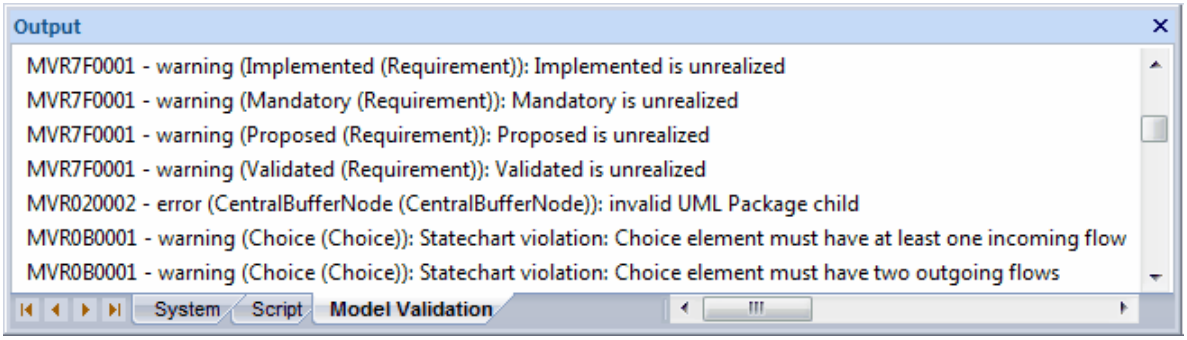
13.13 The Output Window

Access: **View | System Output**.

The Output window is used to display data that is either system generated or Add-In generated. Examples of situations where Enterprise Architect generates items include:

- Validation Items
- Launch of external processes
- Command line output from Build and Test
- Parse errors generated during import
- (Corporate, Business and Software Engineering, Systems Engineering and Ultimate editions of Enterprise Architect) In the Audit History tab, a history of changes to any element or connector selected from the Audit View, the Element List, the Project Browser or the current diagram (Auditing must be turned on and the Element List 108 open - see *Auditing UML Models*)
- Re-docking the Model Search 121 results into the Output window.

You can drag suitable items out of the Output window and add them to diagrams.



Double-click on model validation errors or parsing errors to display the source of the error.

You can also right-click on an item and select context menu options to:

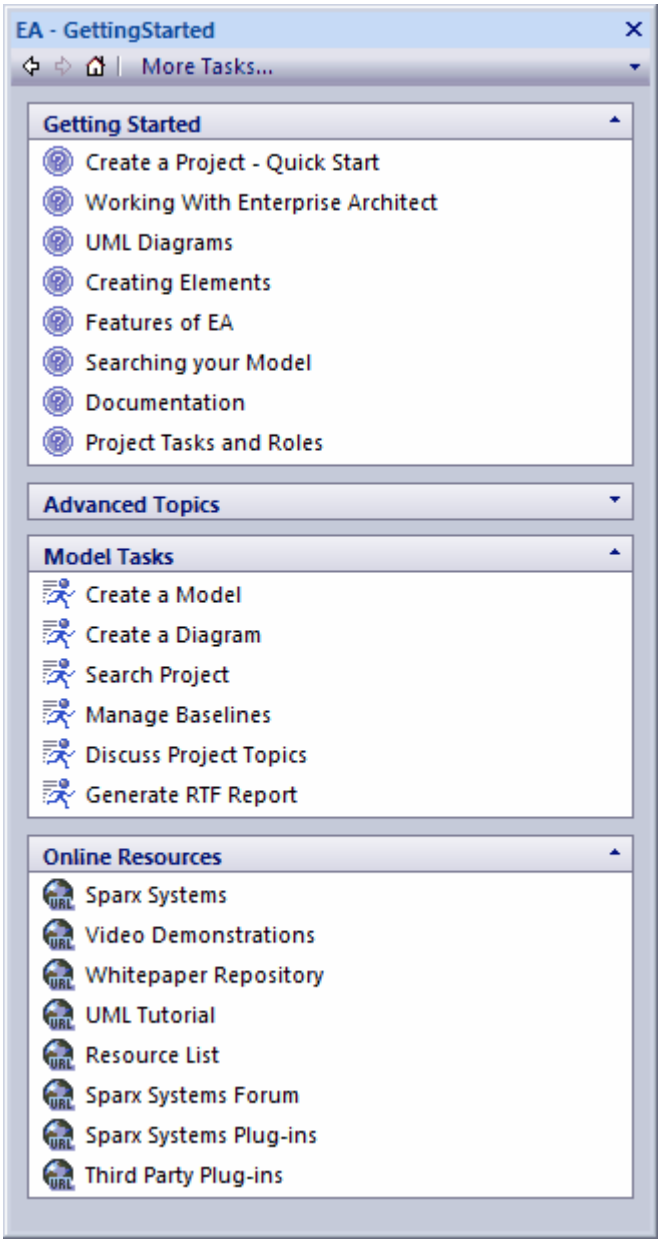
- Copy the selected item to the clipboard
- Copy all items to the clipboard
- Save the output to an external file
- Clear the output from the window.

The Output window can also be used by Add-Ins, if they are configured to do so via the Automation Interface. See *SDK for Enterprise Architect*.

13.14 The Tasks Pane Window

Access: **View | Other Project Tools | Tasks Pane**.

The Tasks Pane window provides access to a range of context-specific help topics, online resources and Enterprise Architect facilities to give you quick access to information and facilities in areas of interest in Enterprise Architect. When you first open Enterprise Architect, the Tasks Pane automatically displays on the right of the screen.



The Tasks Pane has several topic areas such as:

- Getting Started
- Managing Requirements
- Debug and Profile
- Business Rule Modeling
- Code Engineering.

The list of topic areas varies, and can include topics specific to any MDG Technologies being used with Enterprise Architect (see *Extending UML With Enterprise Architect*).

To switch between the topic areas, either:

- Click on the **More Tasks** option in the toolbar and select the required area from the list, or
- Click on the left or right arrow buttons in the toolbar.

The 'Home' icon returns you to the Getting Started topic area.

Tasks Pane Contents

The Tasks Pane provides several types of information and resources. Click on a:

© 1998-2010 Sparx Systems Pty Ltd

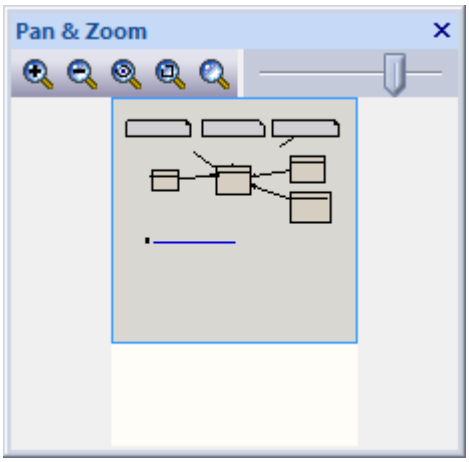
- icon to open appropriate topics from the Enterprise Architect Help file
- icon to open web pages or documents on the Sparx Systems web site
- icon to begin Enterprise Architect tasks appropriate to the Tasks Pane topic area; you must be in an appropriate functional area of Enterprise Architect in order for these tasks to function, such as in an open diagram
- icon to begin Add-In tasks appropriate to the Tasks Pane topic area; you must be in an appropriate functional area in order for these tasks to function
- icon to open report facilities to provide information or data collation tools
- icon to start demonstrations of Enterprise Architect functions in action.

The selected information, web page or demonstration displays on a Browser tab in the main view, or the appropriate task or report window opens.

13.15 The Pan & Zoom Window

Access: **View | Pan & Zoom**.

The Pan & Zoom window provides a 'birds-eye' view of diagrams. It enables you to navigate quickly around large diagrams.



The shaded box represents the viewed area on the open diagram. The toolbar provides the following functions (in order):

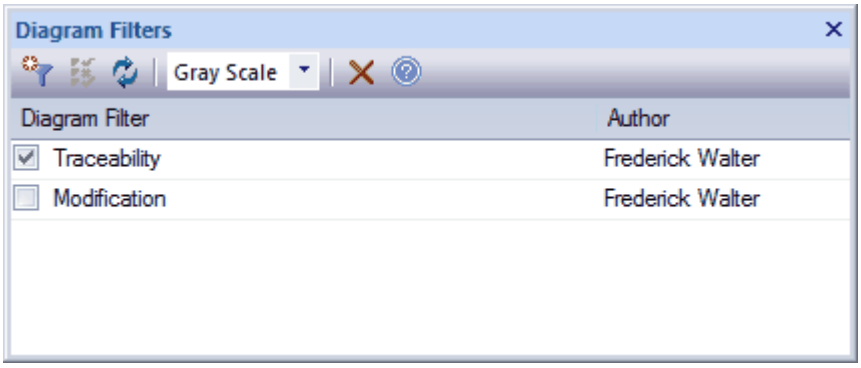
- Zoom In
- Zoom Out
- Zoom to fit diagram
- Zoom to fit page
- Zoom to 100%
- Zoom Slider.

Move the cursor inside the window and hold down the mouse button to pan over the open diagram by moving the shaded box. To zoom, use either the *Zoom Slider* or the buttons located on the tool bar.

13.16 Diagram Filters Window

Access: **View | Diagram Filters**.

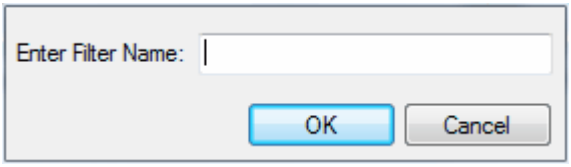
The Diagram Filters window enables you to create and use filters (Dynamic Visual filters) to modify what components of a diagram are visible. Visibility can range from fully exposed through fade-out to completely hidden.



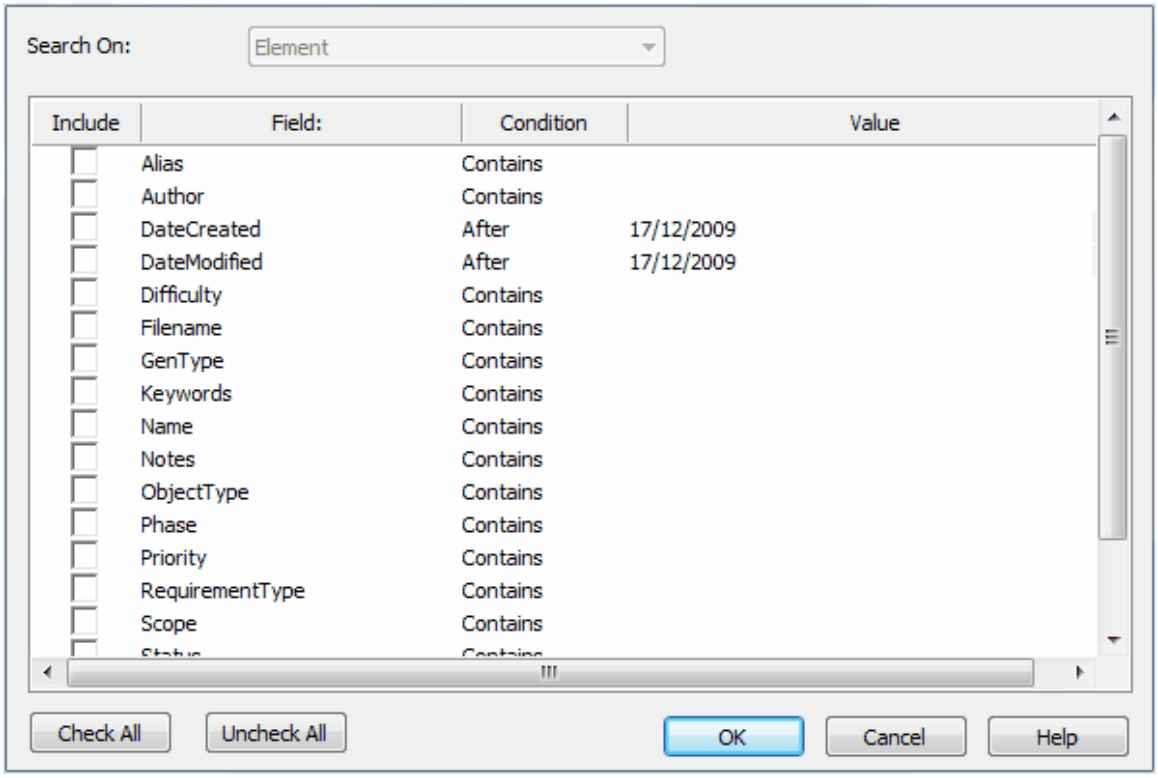
Create a Diagram Filter

To create a filter to be applied to your diagrams, follow the steps below:

1. On the Diagram Filter toolbar, click on the **New Filter** icon - the first on the left. Alternatively, right click on the list panel and select the **New Filter** context menu option. The Create New Diagram Filter dialog displays.



2. In the **Enter Filter Name** field, type a name for the filter, then click on the **OK** button. The Diagram Filter dialog displays, with the **Search On** field fixed on **Element**.



3. Scroll through the element properties to filter on, and select the checkbox against each property you require.
4. For each property, click on the **Condition** field and select, from the drop-down list, the comparison condition to be applied.

© 1998-2010 Sparx Systems Pty Ltd

5. For each property, double-click on the **Value** field and type any specific value to filter on.
6. Click on the **OK** button to save the filter and return to the Diagram Filters window.

Edit a Filter

To edit an existing filter on the Diagram Filters window, either double-click on the filter name, click on it and select the **Properties** icon from the toolbar (the second icon from the left), or right-click on the name and select the **Properties** context menu option. The Diagram Filter dialog displays; adjust the filtered fields as described above.

To just change the name of the filter, right-click on the name and select the **Change Name** context menu option. The Create New Diagram Filter dialog displays. Type over the existing name with the new name, and click on the **OK** button.

Set Effect of Filters

To set the effect of your filters on your diagrams, click on the drop-down arrow of the **Filter Effect** field in the toolbar, and select one of the following options:

- **Fade** - display all elements that do not match the filter criteria in a pale version of the diagram background color.
- **Gray Scale** - display all elements that do not match the filter criteria in pale gray.
- **Hide** - conceal all elements that do not match the filter criteria.
- **Select** - select and highlight (with a hashed border) all those elements that *do* match the filter criteria.

Enable a Filter

To enable a filter so that it takes effect on your diagrams, select the check box against the filter name.

To disable the filter, clear the checkbox.

To disable all filters, click on the **Reload Filters** icon in the toolbar (third option from the left), or right-click on the list panel and select the **Reload Filters** context menu option.

Delete a Filter

To remove a filter from the Diagram Filters window, either click on the filter name and click on the **Delete** icon in the toolbar, or right-click on the filter name and select the **Delete Filter** context menu option.

14 Code Editors

Enterprise Architect provides a number of editors that you can use to maintain scripts, code and templates. Specifically, these are the:

- Shape Script Editor* (see *SDK For Enterprise Architect*)
- Code Generation Template Editor* (see *Code Engineering Using UML Models*)
- Transformation Template Editor* (see *MDA Transformations User Guide*)
- Custom SQL Search Filter Editor* 129
- Database View Editor* (see *Code Engineering Using UML Models*)
- HTML Report Template Editor (see *Report Creation in UML Models*)
- Source Code Viewer* 145
- Script Editor* 183

Each editor has its own features, but they are all based on a common *Code Editor* control.

The Code Editor provides a variety of functions to assist with the code editing process, including:

- Syntax Highlighting 173
- Bookmarks 174
- Cursor history 174
- Brace matching 175
- Automatic indentation 175
- Commenting selections 175
- Scope guides 175
- Zooming 176
- Line selection 176
- intellisense 176
- File Search (see *Visual Execution Analyzer in Enterprise Architect*).

A range of these functions is available through keyboard key combinations and/or context menu options; see the *Code Editor Key Bindings* 177 and *Code Editor Context Menu* 182 topics.

You can customize several of the Code Editor features by setting properties in the Code Editor configuration files. For example, by default the line containing the cursor is always highlighted, but you can turn the highlighting off. For more information see the *Code Editor Configuration Guide* located as a PDF file in the *Config* directory under your Enterprise Architect installation directory.

Syntax Highlighting

The Code Editor highlights - in colored text - the standard code syntax of most language file formats supported by Enterprise Architect, namely:

- Ada (.ada, .ads, .adb)
- ActionScript (.as)
- BPEL Document (.bpel)
- C++ (.h, .hh, .hpp, .c, .cpp, .cxx)
- C# (.cs)
- Delphi/Pascal (.pas)
- Diff/Patch Files (.diff, .patch)
- Document Type Definition (.dtd)
- DOS Batch Files (.bat)
- DOS Command Scripts (.cmd)

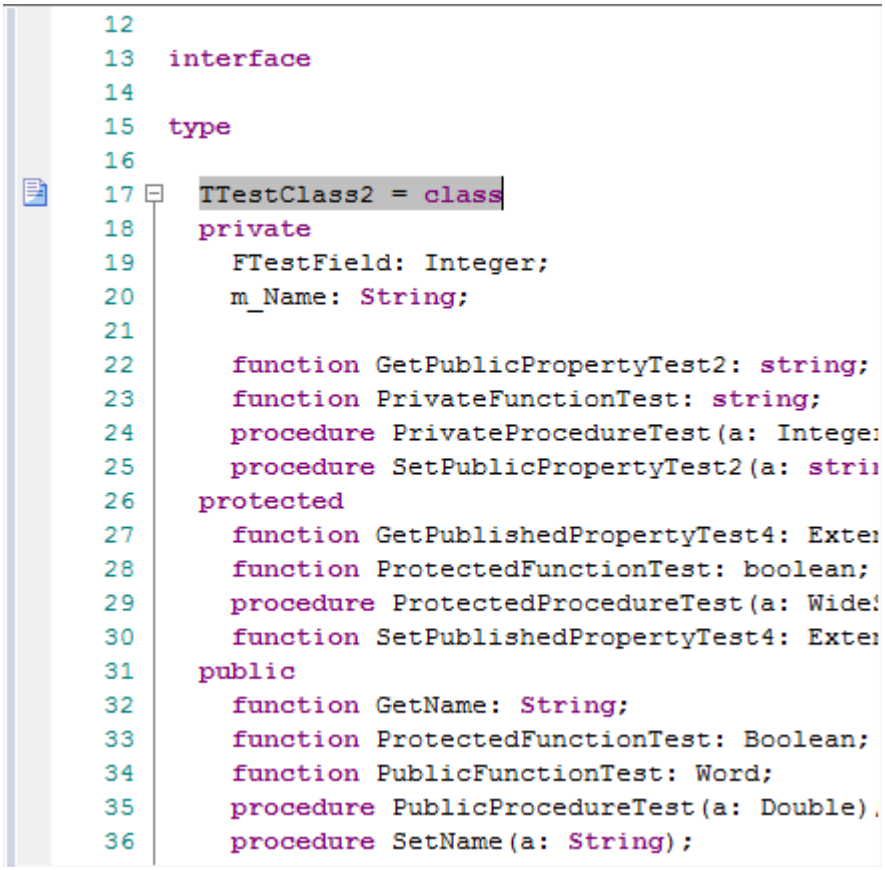
© 1998-2010 Sparx Systems Pty Ltd

- HTML (.html)
- Interface Definition Language (.idl, .odl)
- Java (.java)
- Javascript (.javascript)
- JScript (.js)
- Modified Backus-Naur Form Grammar (.mbnf)
- PHP (.php, .php4, .inc)
- Python (.py)
- Standard Generalized Markup Language (.sgml)
- Structured Query Language (.sql)
- SystemC (.sc)
- Visual Basic 6 (.bas)
- VB.NET (.vb)
- VBScript (.vbs)
- Verilog (.v)
- VHSIC Hardware Description Language (.vhdl)
- Visual Studio Resource Configuration (.rc)
- eXtensible Markup Language (.xml)

Bookmarks

Bookmarks denote a line of interest in the document. You can toggle them on and off for a particular line by pressing **[Ctrl]+[F2]**. Additionally, you can press **[F2]** and **[Shift]+[F2]** to navigate to the next or previous bookmark in the document.

In the following diagram, a bookmark has been set on line 17.



Cursor History

The Code Editor Control keeps a history of the previous 50 cursor positions. An entry in the history list is

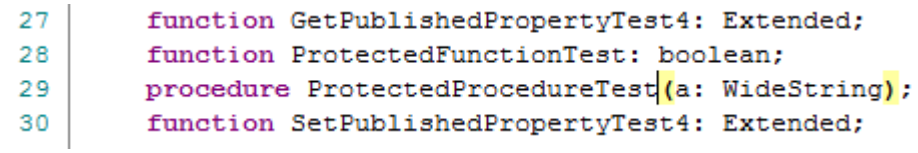
created when:

- The cursor is moved more than 10 lines from its previous position
- The cursor is moved in a find/replace operation.

You can navigate to an earlier point in the cursor history by pressing **[Ctrl]+[-]**, and a to later point by pressing **[Ctrl]+[Shift]+[-]**.

Brace/Bracket Matching

When you place the cursor over a brace or bracket, the Code Editor highlights its corresponding partner. You can then navigate to the matching brace by pressing **[Ctrl]+[E]**.



Automatic Indentation

For each supported language, the Code Editor adjusts the indentation of a new line according to the presence of control statements or scope block tokens in the lines leading up to the cursor position.

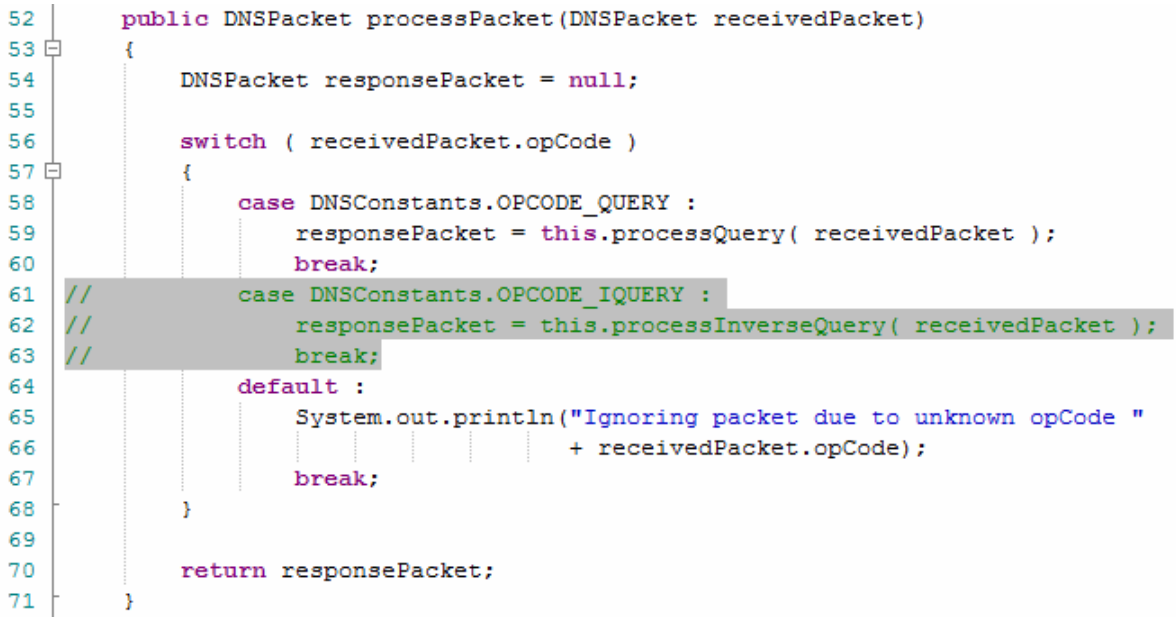
For more information on customizing automatic indentation for a language, see the *Configuration* 173 *Guide*.

Commenting Selections

For languages that support comments, the Code Editor can comment entire selections of code. The Code Editor recognizes two types of commenting:

- Line Commenting - entire lines are commented from the start (for example, // This is a comment)
- Stream Commenting - sections of a line are commented from a specified start point to a specified end point (for example, /* This is a comment */).

You can toggle comments on the current line or selection by pressing **[Ctrl]+[Shift]+[C]** for line comments, or **[Ctrl]+[Shift]+[X]** for stream comments.



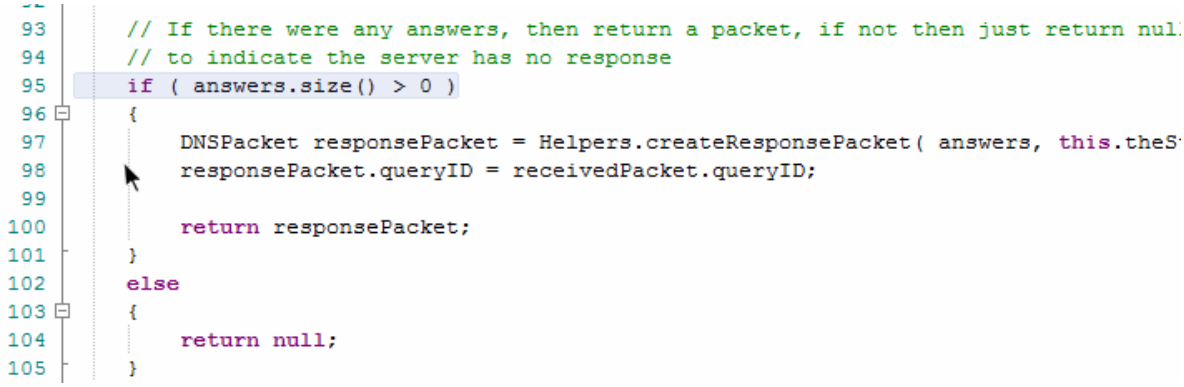
For more information on customizing selection commenting for each language, see the Configuration 173 section.

Scope Guides

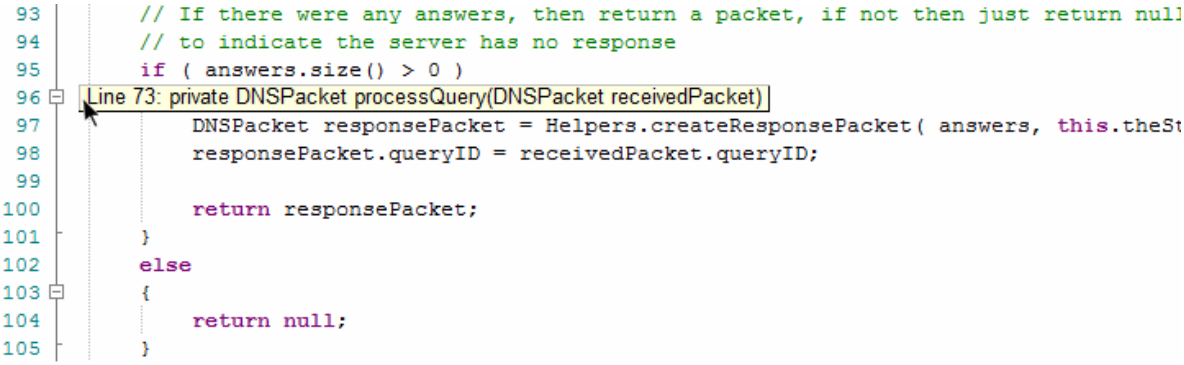
If the mouse is placed over an indentation marker, the Code Editor performs a 'look back' to find the line that

© 1998-2010 Sparx Systems Pty Ltd

started the scope at that indentation level. If the line is found and is currently on screen, it is highlighted in light blue.



Alternatively if the line is off screen, a calltip is displayed advising of the line number and contents.



Zooming

You can zoom into and out of the contents of the Code Editor using **[Ctrl]+mousewheel** or **[Ctrl]+keypad[+]** / **[Ctrl]+keypad[-]**. Zoom can be restored to 100% by using **[Ctrl]+keypad[/]**.

Line Selection

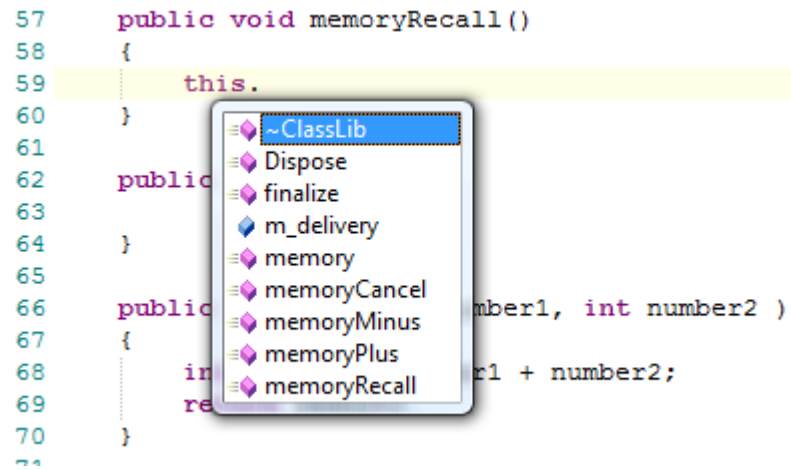
If you want to move the cursor to a specific line of code, press **[Ctrl]+[G]** and, in response to the prompt, type in the line number. Press the **OK** button. The editor displays the specified line of code with the cursor at the left.

14.1 Intellisense

Intellisense is a feature that provides choices of code items and values as you type. Not all code editors use intellisense; those that do are indicated by an asterisk in the list 173 of Enterprise Architect code editors. Intellisense provides you with context-based assistance through autocompletion lists, calltips and mouseover information.

Autocompletion List

An autocompletion list provides a list of possible completions for the current text. The list is automatically invoked when you enter an accessor token (such as a period or pointer accessor) after an object or type that contains members.

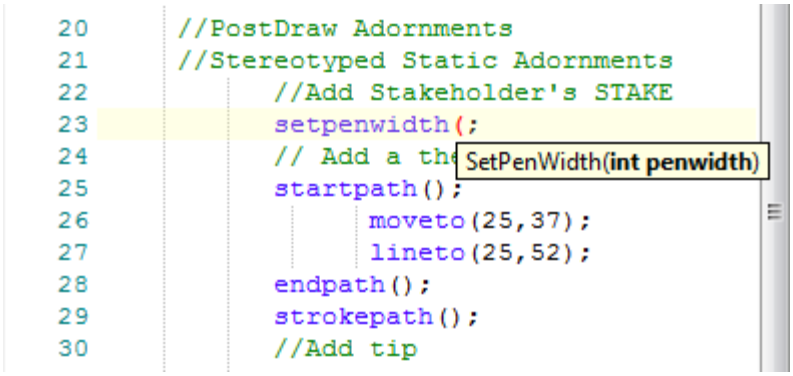


You can also invoke the autocompletion list manually by pressing **[Ctrl]+[Spacebar]**; the Code Editor then searches for matches for the word leading up to the invocation point.

Select an item from the list and press **[Enter]** or **[Tab]** to insert the item into the code. To dismiss the autocompletion list, press **[Escape]**.

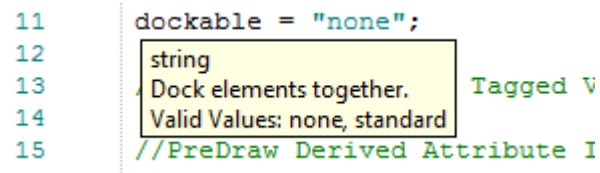
Calltips

Calltips display the current method's signature when you type the parameter list token (for example, opening parenthesis). If the method is overloaded, the calltip displays arrows that you can use to navigate through the different method signatures.



Mouseover Information

You can display supporting documentation for code elements (for example, attributes and methods) by hovering the cursor over the element in question.



14.2 Code Editor Key Bindings

Key	Description
[Ctrl]+[G]	Move cursor to a specified line

© 1998-2010 Sparx Systems Pty Ltd

Key	Description
[↓]	Move cursor down one line
[Shift]+[↓]	Extend selection down one line
[Ctrl]+[↓]	Scroll down one line
[Alt]+[Shift]+[↓]	Extend rectangular selection down one line
[↑]	Move cursor up one line
[Shift]+[↑]	Extend selection up one line
[Ctrl]+[↑]	Scroll up one line
[Alt]+[Shift]+[↑]	Extend rectangular selection up one line
[Ctrl]+[[ ]	Move cursor up one paragraph
[Ctrl]+[Shift]+[[ ]	Extend selection up one paragraph
[Ctrl]+[ ]]	Move cursor down one paragraph
[Ctrl]+[Shift]+[ ]]	Extend selection down one paragraph
[←]	Move cursor left one character
[Shift]+[←]	Extend selection left one character
[Ctrl]+[←]	Move cursor left one word
[Ctrl]+[Shift]+[←]	Extend selection left one word
[Alt]+[Shift]+[←]	Extend rectangular selection left one character
[→]	Move cursor right one character
[Shift]+[→]	Extend selection right one character
[Ctrl]+[→]	Move cursor right one word
[Ctrl]+[Shift]+[→]	Extend selection right one word
[Alt]+[Shift]+[→]	Extend rectangular selection right one character
[Ctrl]+[/]	Move cursor left one word part
[Ctrl]+[Shift]+[/]	Extend selection left one word part
[Ctrl]+[\]	Move cursor right one word part
[Ctrl]+[Shift]+[\]	Extend selection right one word part
[Home]	Move cursor to the start of the current line

Key	Description
[Shift]+[Home]	Extend selection to the start of the current line
[Ctrl]+[Home]	Move cursor to the start of the document
[Ctrl]+[Shift]+[Home]	Extend selection to the start of the document
[Alt]+[Home]	Move cursor to the absolute start of the line
[Alt]+[Shift]+[Home]	Extend rectangular selection to the start of the line
[End]	Move cursor to the end of the current line
[Shift]+[End]	Extend selection to the end of the current line
[Ctrl]+[End]	Move cursor to the end of the document
[Ctrl]+[Shift]+[End]	Extend selection to the end of the document
[Alt]+[End]	Move cursor to the absolute end of the line
[Alt]+[Shift]+[End]	Extend rectangular selection to the end of the line
[Page Up]	Move cursor up a page
[Shift]+[Page Up]	Extend selection up a page
[Alt]+[Shift]+[Page Up]	Extend rectangular selection up a page
[Page Down]	Move cursor down a page
[Shift]+[Page Down]	Extend selection down a page
[Alt]+[Shift]+[Page Down]	Extend rectangular selection down a page
[Delete]	Delete character to the right of the cursor
[Shift]+[Delete]	Cut selection
[Ctrl]+[Delete]	Delete word to the right of the cursor
[Ctrl]+[Shift]+[Delete]	Delete until the end of the line
[Insert]	Toggle overtype
[Shift]+[Insert]	Paste
[Ctrl]+[Insert]	Copy selection
[Backspace]	Delete character to the left of the cursor
[Shift]+[Backspace]	Delete character to the left of the cursor
[Ctrl]+[Backspace]	Delete word to the left of the cursor

© 1998-2010 Sparx Systems Pty Ltd

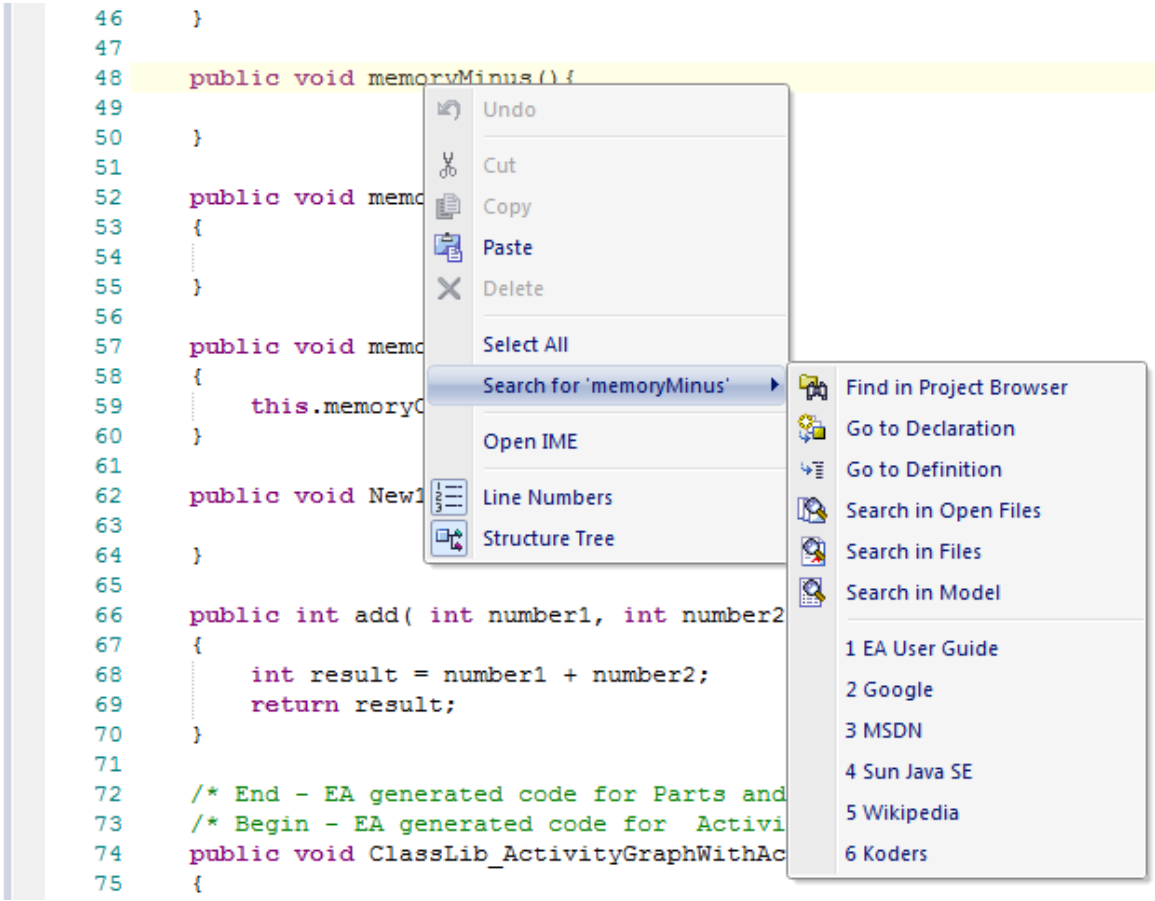
Key	Description
[Ctrl]+[Shift]+[Backspace]	Delete from the start of the line to the cursor
[Alt]+[Backspace]	Undo delete
[Tab]	Indent cursor one tab
[Ctrl]+[Shift]+[I]	Indent cursor one tab
[Shift]+[Tab]	Unindent cursor one tab
[Ctrl]+keypad[+]	Zoom in
[Ctrl]+keypad[-]	Zoom out
[Ctrl]+keypad[/]	Restore Zoom
[Ctrl]+[Z]	Undo
[Ctrl]+[Y]	Redo
[Ctrl]+[X]	Cut selection
[Ctrl]+[C]	Copy selection
[Ctrl]+[V]	Paste
[Ctrl]+[L]	Cut line
[Ctrl]+[Shift]+[L]	Delete line
[Ctrl]+[T]	Transpose line
[Ctrl]+[Shift]+[T]	Copy line
[Ctrl]+[A]	Select entire document
[Ctrl]+[D]	Duplicate selection
[Ctrl]+[U]	Convert selection to lowercase
[Ctrl]+[Shift]+[U]	Convert selection to uppercase
[Ctrl]+[E]	Move cursor to matching brace
[Ctrl]+[Shift]+[E]	Extend selection to matching brace
[Ctrl]+[Shift]+[C]	Toggle line comment on selection
[Ctrl]+[Shift]+[X]	Toggle stream comment on selection

Key	Description
[Ctrl]+[F2]	Toggle bookmark
[F2]	Go to next bookmark
[Shift]+[F2]	Go to previous bookmark
[Ctrl]+[Shift]+[W]	Toggle whitespace characters
[Ctrl]+[Shift]+[L]	Toggle EOL characters
[Ctrl]+[Spacebar]	Invoke autocomplete
[Ctrl]+[-]	Go backwards in cursor history
[Ctrl]+[Shift]+[-]	Go forwards in cursor history
[F12]	Start/Cancel search for keyword in file(s).
[Ctrl]+[F]	Find text
[Ctrl]+[R]	Replace

© 1998-2010 Sparx Systems Pty Ltd

14.3 Code Editor Context Menu

When working on a file with a code editor, you can access a number of editing options through the context menu. Right-click on a text string to display the menu.



The first six context menu options provide simple editing functions. Other options on the menu can vary depending on which editor 173 you are using, but should include most or all of the following:

- **Search for '<string>'** - Displays a submenu that enables you to locate the search string in a range of locations:
  - **Find in Project Browser** finds the object containing the selected text in the Project Browser
  - **Go to Declaration** locates the declaration of a symbol in the source code
  - **Go to Definition** locates the definition of a symbol in the source code (applicable to languages where symbols are declared and defined in separate places e.g. C++, Delphi)
  - **Search in Open Files** opens the Visual Execution Analyzer File Search facility (see *Visual Execution Analyzer in Enterprise Architect*), then searches for the selected text string in other code files of the same type and in the same folder as the current file that are open, displaying the results in *Tree View*; you can change the folder path, search text and file type as required within the File Search window
  - **Search in Files** performs the same search as **Search in Open Files**, except that the search is in all comparable files whether they are open or not
  - **Search in Model** performs an *Element Name* 131 search in the Model Search 121 facility, and displays the results on the Model Search tab
  - **EA User Guide** displays the description of the code item in the *Enterprise Architect User Guide*
  - **Google** displays the results of a search on the text from a Google search
  - **MSDN** displays the results of a search on the text in the Microsoft Developer Network (MSDN)
  - **Sun Java SE** displays the results of a search on the text in the Sun Microsystems 'Sun Search' facility
  - **Wikipedia** displays any entry on the object on the Wikipedia web site.

Note:

The options in the lower half of the menu (after **Search in Model**) are configurable. You can add new search tools or remove existing ones by editing the *searchProviders.xml* file in the *Sparx Systems > EA > Config* folder. This file is in OpenSearch description document format.

- **Open (Close) IME** - opens the *Input Method Editor* to enable you to enter text in your selected foreign language script (such as Japanese); you set the keyboard language using the Windows *Control Panel - Regional and Language Options* facility
- **Line Numbers** - shows or hides the line numbers against the lines of code
- **Structure Tree** - (in the Source Code viewer only) shows or hides the element hierarchy panel.

Script Editor

If you select the **Search for '<string>'** context menu option while working in the Script Editor 183, a slightly different submenu displays:

The **Search in Scripts** option opens the Execution Analyzer File Search facility, setting the **Search Path** field to **Search in Scripts** and the **Search Text** field to the selected text, then searching all scripts for the text string and displaying the results of the search in *Tree View.*

14.4 Script Editor

Note:

This facility is available in the Corporate, Business and Software Engineering, Systems Engineering and Ultimate editions.

The *Script Editor* enables you to edit scripts. It also contains a toolbar that you can use to run and stop an open script. The editor is based on, and provides the facilities of, the common Code Editor 173.

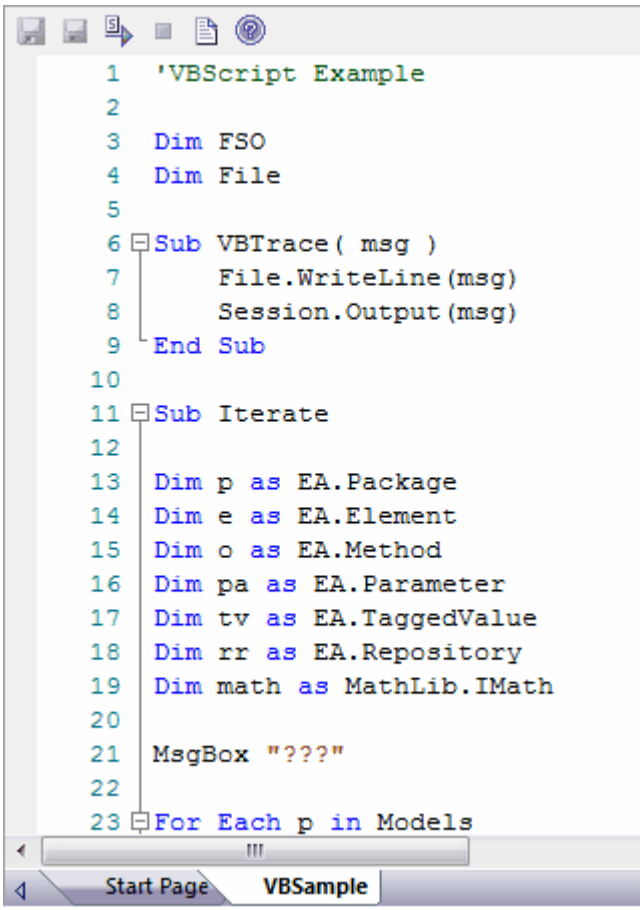
To open the Script Editor, double-click on the required script in the Scripts tab of the Scripter window 149. The editor opens in the main work area.

The VBScript example below is a script that iterates all the packages in the current model and prints their names.

Note:

In the example, note the syntax of declaring variables representing Enterprise Architect's script objects. This syntax enables the editor to present intellisense 184, but is not necessary for executing the script.

© 1998-2010 Sparx Systems Pty Ltd



The toolbar options enable you to:

- Save changes to the current script
- Save the current script under a different name
- Run the script
- Stop the executing script
- View the script output in the Scripts tab of the Output window.

Enterprise Architect Script Objects

Enterprise Architect adds to the available functionality and features of the editor script language by providing inbuilt objects. These are either *Type Libraries*, providing intellisense for editing purposes, or *Runtime objects*, providing access to objects of the types described in the Type Libraries.

The available intellisense scripting objects are:

- EA
- MathLib
- System
- The runtime scripting objects (below).

The available runtime scripting objects are:

- Repository [Type: IDualRepository] - this is the Enterprise Architect automation interface (see *SDK For Enterprise Architect*)
- Maths [Type: IMath]
- Session [Type: ISession].

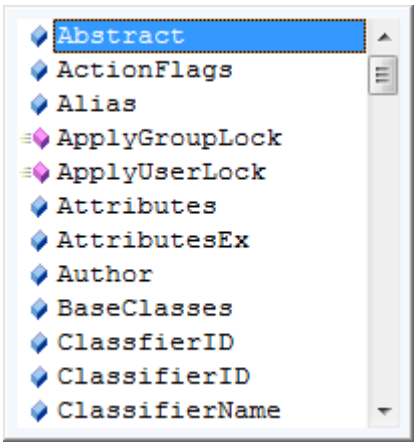
Script Editing Intellisense (Required Syntax)

Intellisense is available not only in the Script Editor, but also in the Script Console. Intellisense at its most basic is presented for the inbuilt functionality of the script engine. For intellisense on the additional Enterprise Architect scripting objects listed above, you must declare variables according to syntax that specifies a type. It

is not necessary to use this syntax to execute a script properly. It is only present so that the correct intellisense can be displayed for an item. The syntax can be seen in the above diagram in, for example:

```
Dim e as EA.Element
```

Then, when you type, in this case, ***e.*** the editor displays a list of member functions and properties of *e's* type.



You select one of these to complete the line of script. You might, therefore, type:

```
VBTrace( e.
```

As you type the period, the editor presents the appropriate list and you might double-click on, for example, **Abstract**. This is inserted in the line, and you continue to type or select the rest of the statement. In this case, adding the end space and parenthesis.

```
VBTrace( e.Abstract )
```

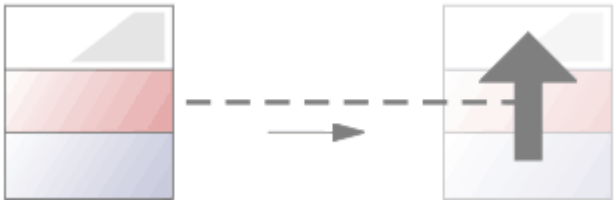
Keystrokes

In the Script Editor or Console, intellisense is presented on the following keystrokes.

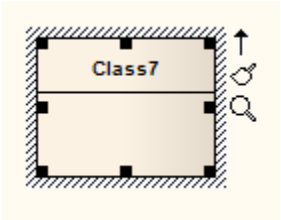
- Press **[.]** (period) after an item to list any members for that item's type.
- Press **[Ctrl]**+**[Spacebar]** on a word to list any intellisense items with a name starting with the string at the point keystroke was pressed.
- Press **[Ctrl]**+**[Spacebar]** when not on a word to display any available top level intellisense items - these are the intellisense objects described above plus any built-in methods and properties of the current scripting language.

© 1998-2010 Sparx Systems Pty Ltd

15 The Quick Linker



The *Quick Linker* provides a simple and fast way to create new elements and connectors on a diagram. When an element is selected in a diagram, the **Quick Linker** arrow is displayed at the upper right corner of the element, as shown below:



Simply clicking and dragging the icon enables you to create new connectors and elements on a diagram, as explained in the following topics:

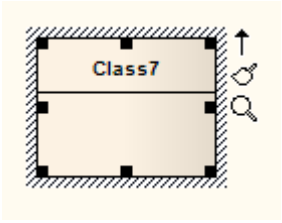
- *Create New Elements* 186
- *Create Connectors* 188

The connectors and elements suggested by the Quick Linker are the commonest objects appropriate to the context. You can select others from the Enterprise Architect UML Toolbox pages. Also, a Technology Developer can edit the lists of elements and connectors, and create new combinations. For further information, see *SDK for Enterprise Architect.*

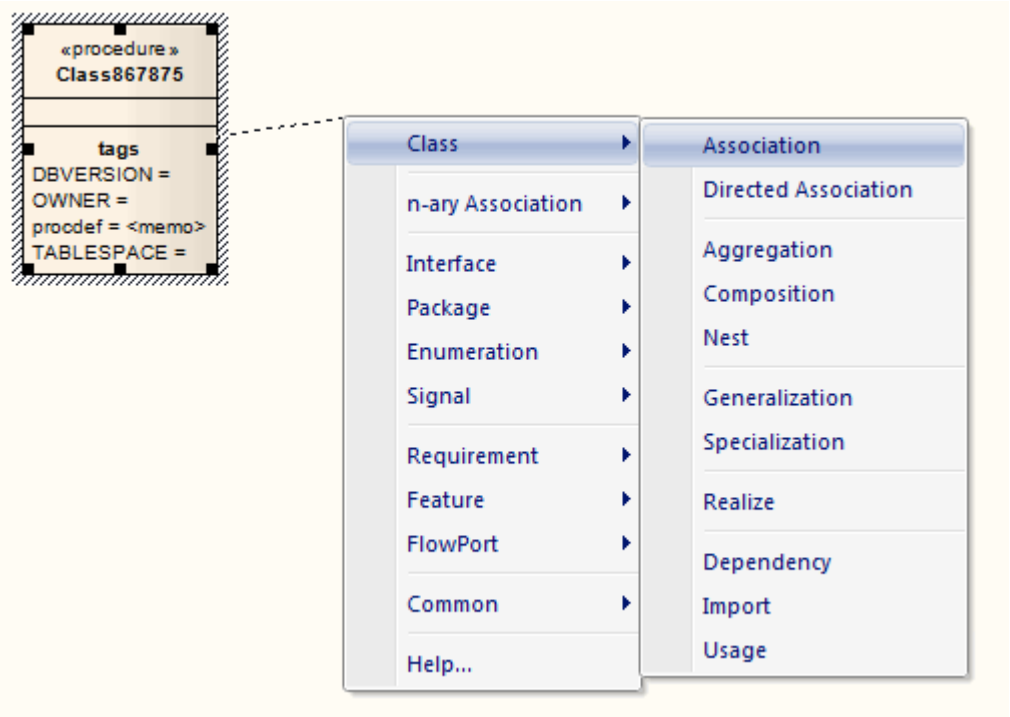
15.1 Create New Elements

To create new elements using the Quick Linker, follow the steps below:

1. Select a start element on the current diagram.



2. Drag the Quick Linker arrow onto an empty area of the diagram.



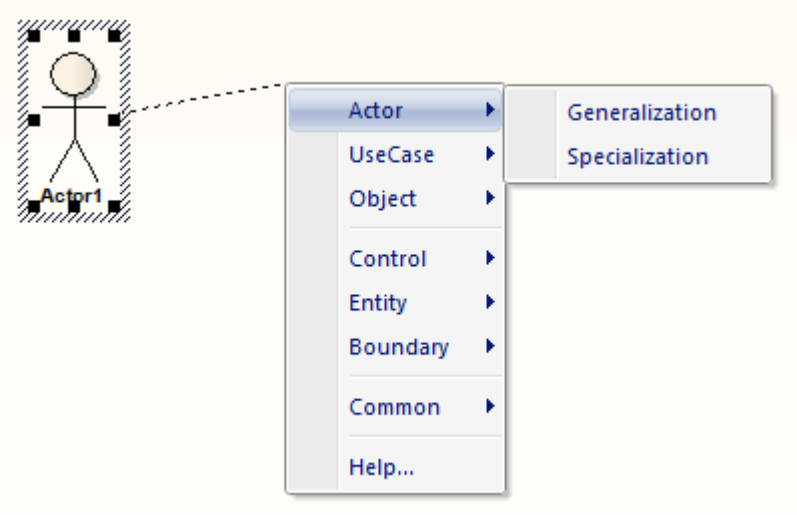
3. Use the Quick Linker context menu to select the type of element and connector to create.

Tips:

- Press and hold **[Shift]** while selecting the type of connector to select an existing classifier as the target.
- For rapid modeling, you can suppress the Properties dialog when creating new elements. See the option **Tools | Options | Objects | Edit Object on New.**

Note:

The available Quick Linker options depend on the type of element selected. For example, the Quick Linker options for a Class (above) differ from those of an Actor (below). These are the most appropriate, commonly used elements and connectors for the source element; you can create other target elements and connectors by selecting them from the appropriate Toolbox page.

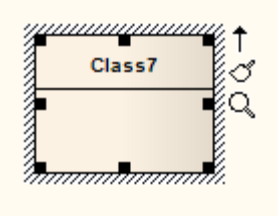


© 1998-2010 Sparx Systems Pty Ltd

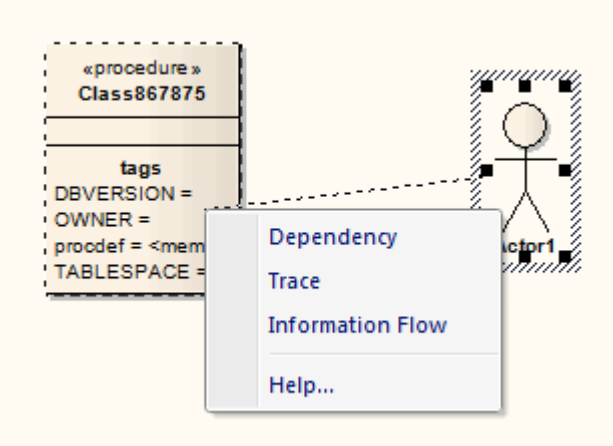
15.2 Create Connectors

To create new connectors between existing elements using the Quick Linker, follow the steps below:

1. Select the source element on the current diagram.



2. Drag the **Quick Linker** arrow onto another element in the diagram.
3. Release the mouse button and use the **Quick Linker** context menu to select the type of connector.



Notes:

- The list of connectors provides the most appropriate, commonly-used connectors for the source and target element types. If you want to use a different connector, select the appropriate Toolbox page, click on the required connector and then on the source element, and drag across to the target element.
- The connector does not actually establish until you release the mouse button over the target element. However, a dotted line shows where the connector would be at any point, and the solid outline of the nearest element or extension changes to a hatched outline as you move the cursor onto it; this helps you identify where the connector will connector to, if there are many closely-arranged elements, Parts, Ports and other extensions.
- You can also bend the connector, pressing **[Shift]** as you drag the cursor in a new direction.

16 Defaults and User Settings

You can configure various settings using the Options 189 dialog, which you display by selecting the **Tools | Options** menu option. In addition, there are several options to change the overall look and feel of Enterprise Architect 207 in the **View | Visual Style** submenu. Those settings and options are explored in this topic.

On occasion, you might want to use Enterprise Architect for two distinct types of operation at the same time. You can do this by adding the following command line argument when you run Enterprise Architect:

/regkey:<regkeyname>

This stores registry settings - such as window layouts - to a different path in the registry.

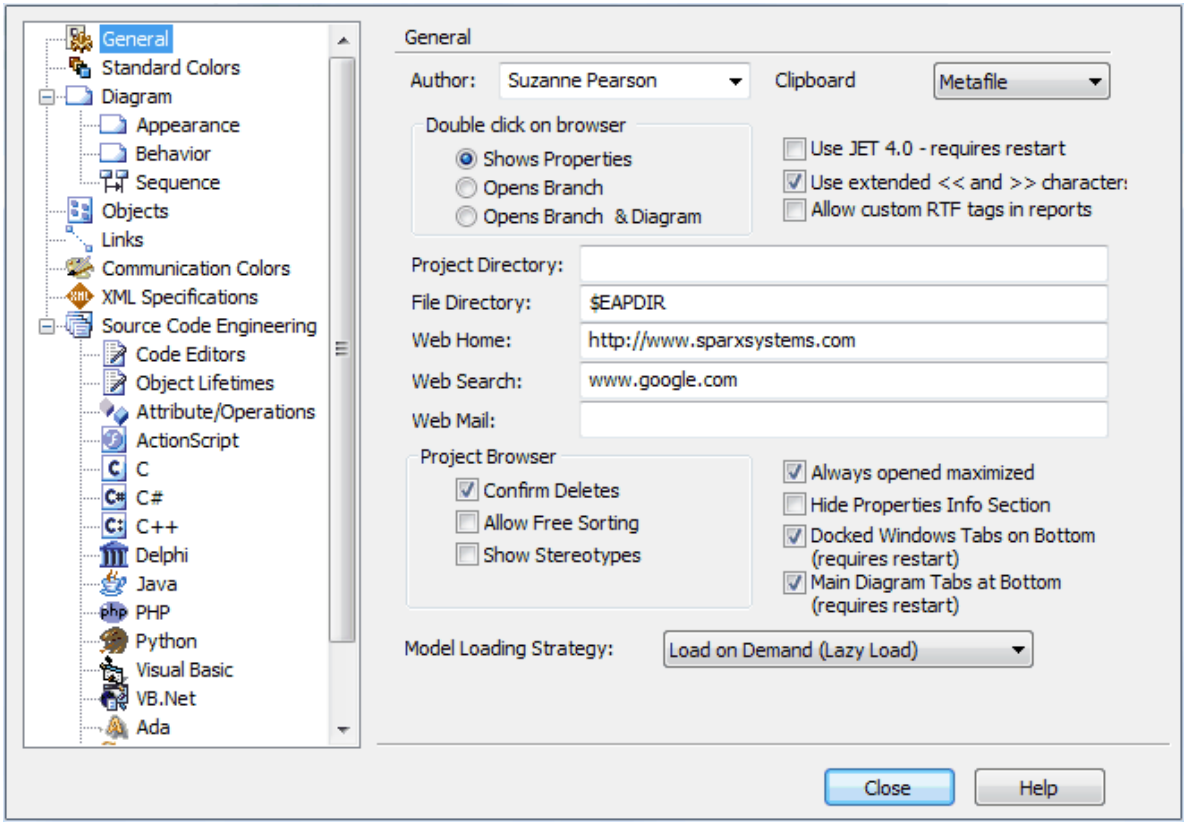
See Also

- Workspace Layouts 100

16.1 Configure Local Options

There are several options to customize how Enterprise Architect displays and works with models and model elements. This topic describes those settings that are local to a particular user and machine.

Select the **Tools | Options** menu option to display the Options dialog.



Most of these settings are stored in your registry so they are set for your use only. For a networked workplace, registry settings can be copied down to any network workstation you log in to. Otherwise, the settings are valid for the current machine only.

© 1998-2010 Sparx Systems Pty Ltd

You select the required page of options by clicking on the appropriate category name in the left hand list on the dialog. For information on the options on a specific page, select the appropriate page title below.

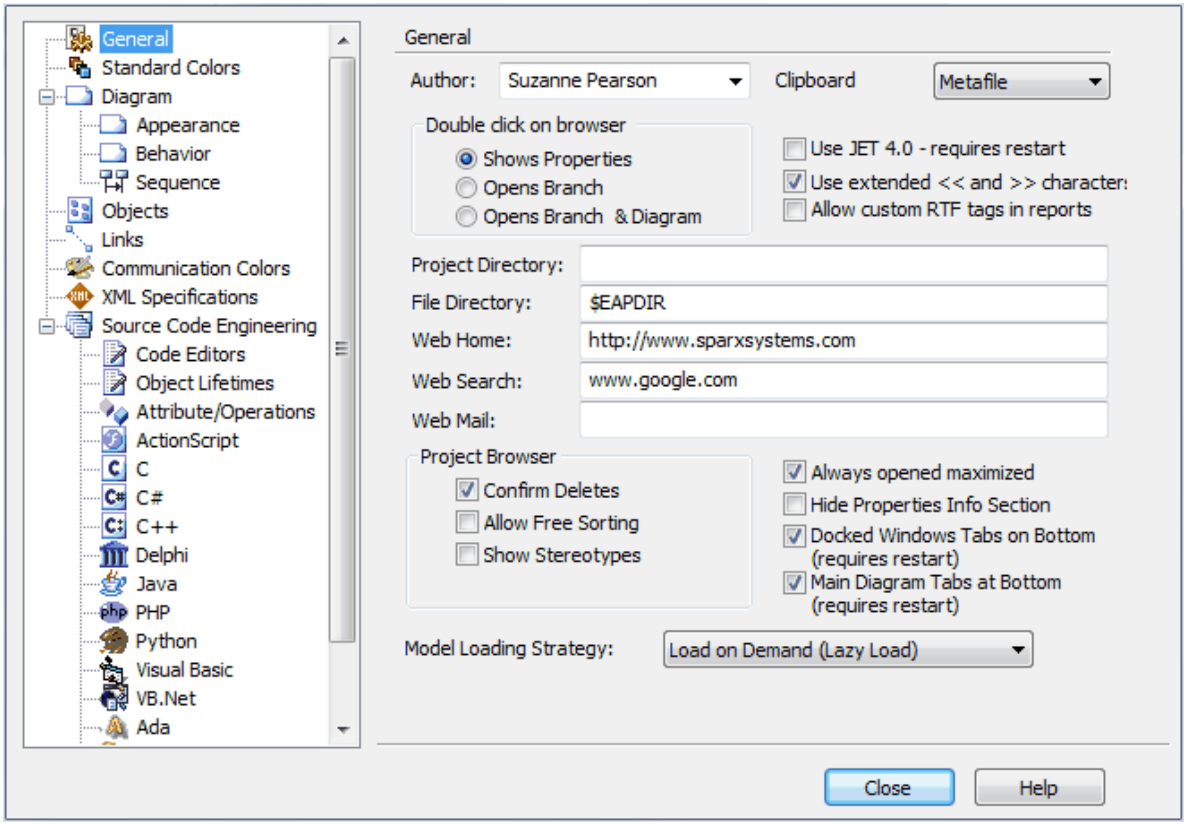
- General 190
- Standard Colors 192
- Diagram 193
- Diagram Appearance 195
- Diagram Behavior 198
- Diagram Sequence 199
- Objects 201
- Links 203
- Communication Message Colors 204
- XML Specifications 206
- Source Code Engineering
- Code Editors
- Object Lifetimes
- Attribute/Operations
- ActionScript
- C
- C#
- C++
- Delphi
- Java
- PHP
- Python
- Visual Basic
- VB.Net

Note:

The options in the second and third columns above, and additional defaults and settings, are discussed under the various code generation and import/export topics in *Code Engineering Using UML Models*.

16.1.1 General

The General page of the Options dialog is shown below:



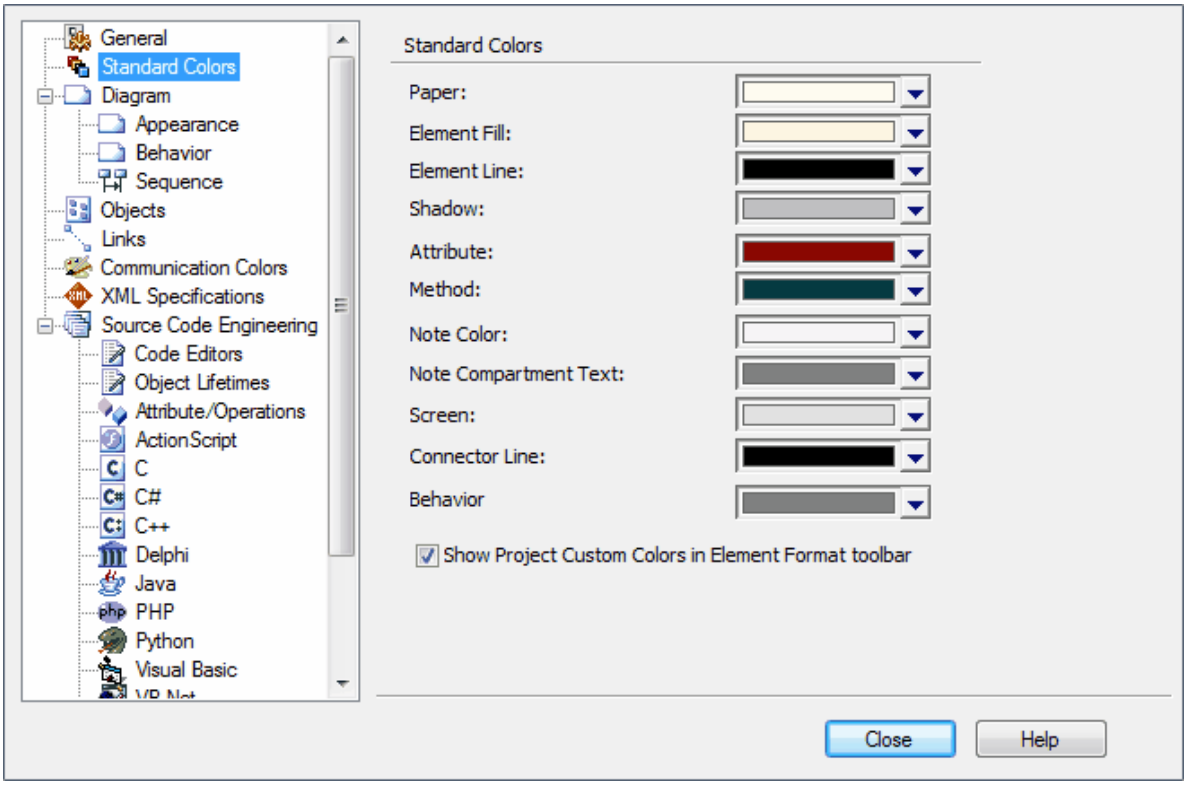
Option	Use to
Author	Set the default author when new elements are created and modifications made.
Clipboard Format	Set the graphic format in which to save image to the clipboard; **Metafile** has the best detail.

Option	Use to
Double-click on Browser	Configure the Project Browser behavior 21.
Use Jet 4.0 - requires restart	Set JET 4.0 as the database engine; this ensures compatibility with .EAP files that are in turn compatible with versions of MS Access later than Access 97.
Use extended « and » characters	Apply the guillemet characters to stereotypes. For some double byte character sets, it is best to select this checkbox.
Allow custom RTF tags in reports	Enable you to use customized rich text format code in report templates when generating reports with the Legacy RTF Report Generator. From release 7.0 of Enterprise Architect, with the Rich Text Notes 104 facility, this option is not really necessary.
Project Directory	Specify the default location of Enterprise Architect projects.
File Directory	Specify the default location for files.
Web Home	Specify the default home page to open when you click on the **Home** button in the internal web browser 135.
Web Search	Specify the default web page to open when clicking on the **Web Search** button in the internal web browser 135.
Web Mail	Specify the email server address (http://xxxxx/exchange/) for accessing email through the web browser 135 within Enterprise Architect.
Confirm Deletes	Use or bypass the Confirm Delete dialog; only clear this checkbox if you are an experienced user!
Allow Free Sorting	Enable you to re-order elements within a package regardless of element type, in the Project Browser.
Show Stereotypes	Show element and feature stereotypes in the Project Browser.
Always open maximized	Ensure that Enterprise Architect always starts up in a maximized window.
Hide Properties Info Section	Hide or show the properties information status bar on the Properties window.
Docked Windows Tabs on Bottom (requires restart)	Display the docked window tabs at the bottom of the window (default). Clear the checkbox to show the tabs at the top of the windows.
Main Diagram Tabs at Bottom (requires restart)	Display the diagram tabs at the bottom of the main view (default). Clear the checkbox to show the tabs at the top of the main view.
Model Loading Strategy	Select the Enterprise Architect model loading behavior; choose either: • **Load on Demand (Lazy Load)** • **Preload Entire Model** **Load on Demand** does not load the full project view when the model is loaded. Instead, only the parts that are necessary to display the visible portion of the tree are loaded. This means that a model loads faster and users can begin work sooner, but at the expense of later small delays as Enterprise Architect loads specific portions of the model.

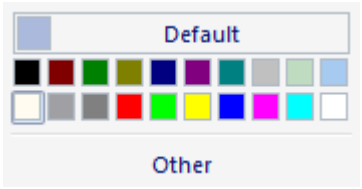
© 1998-2010 Sparx Systems Pty Ltd

16.1.2 Standard Colors

The Standard Colors page of the Options dialog enables you to set the display color of a range of objects and their backgrounds. On first use, the page displays the system default colors, as shown below:



To display the range of colors available for an item, or define a new color, click on the down arrow at the end of the appropriate field. The selection pallet displays.



Click on the required color. This sets the field on the Standard Colors page to the selected color.

If you require a wider selection of colors, click on the **Other** button and select from the color chart, or customize a color using RBG/HSL codes.

If you decide to reset the color to the system default, click on the **Default** button.

Option	Use to
Paper	Define the paper (background) color in diagrams.
Element Fill	Define the fill color of elements.
Element Line	Define the line color of elements.
Shadow	Define the color of element outline shadows.
Attribute	Define the color of attribute text.
Method	Define the color of method (operation) text.

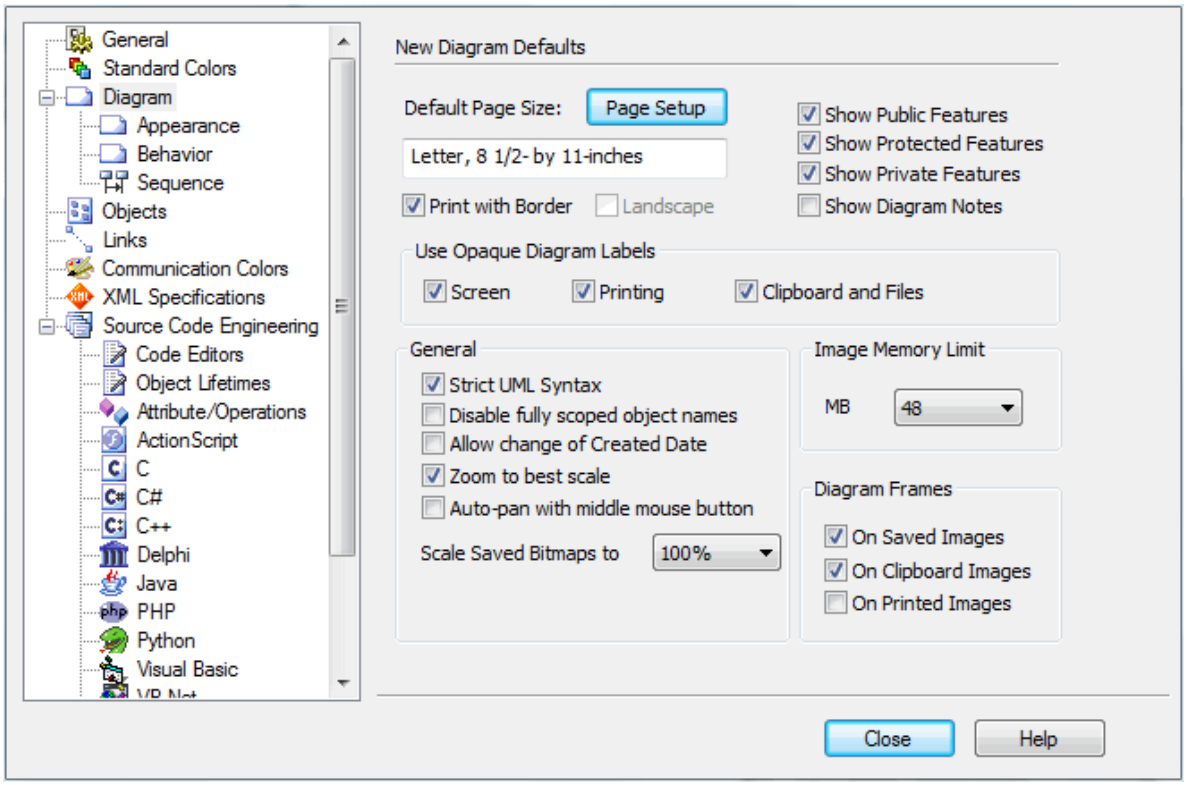
Option	Use to
Note Color	Define the note background color.
Note Compartment Text	Define the color of text in the element Note compartment.
Screen	Define the screen (element) color.
Connector Line	Define the connector line color.
Behavior	Define the color for behaviors in Activity diagrams.
Show Project Custom Colors in Element Format toolbar	Enable use of project custom colors; for more information on setting and getting the custom colors see the *Get and Set Project Custom Colors* topic in *UML Modeling with Enterprise Architect – UML Modeling Tool*.

Notes:

- Using this page of the Options dialog, you can set the background of all diagrams to be a specific color. You can also use the Diagram Appearance 195 page to set all diagram backgrounds to be either a uniform color or to have a fade gradient from top to bottom. Alternatively, you can create a background image for the diagram; see the *Create Custom Diagram Background* topic in *UML Modeling with Enterprise Architect – UML Modeling Tool*.
- To override the default appearance of a specific element on all diagrams on which it is found, right-click on the element and select the **Appearance | Default Appearance** context menu option. The Default Appearance dialog displays. See *UML Modeling with Enterprise Architect – UML Modeling Tool.*
- To change the appearance of a specific element on the current diagram only, use the Format 99 toolbar 99. If the Format toolbar is not displayed, select the **View | Toolbars | Format Tool** menu option.

16.1.3 Diagram

The New Diagram Defaults page of the Options dialog enables you to configure overall options for new diagrams and general diagram behavior.

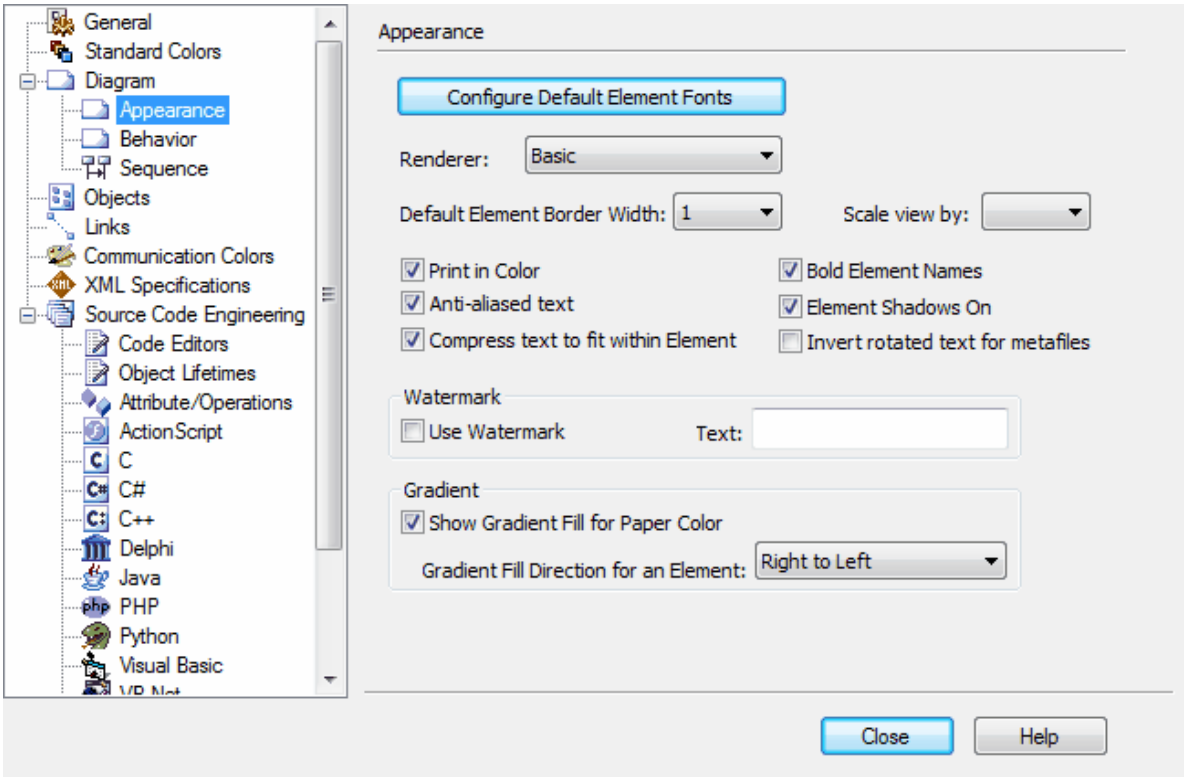


© 1998-2010 Sparx Systems Pty Ltd

Option	Use to
Default Page Size	Show the default page size for new diagrams, which you set by clicking on the **Page Setup** button to display the Page Setup dialog.
Print with Border	Print pages with a border.
Landscape	Print pages in landscape orientation. This checkbox is controlled from the Page Setup dialog.
Show Public Features **Show Protected Features** **Show Private Features**	Set the default visibility of Class features.
Show Diagram Notes	Display the diagram details in the top left corner of all diagrams in the model. Details include diagram name, package, version and author.
Use Opaque Diagram Labels	Specify where opaque diagram labels should display. **Screen** and **Printing** are best, **Clipboard and Files** might not be desirable.
Strict UML Syntax	Enforce compliance with UML syntax when adding new connectors and other structures.
Disable fully scoped object names	Disable fully scoped object names, when an element is in a diagram; don't use when the element is in its home package. A scoped name is of the format *MyClasses::foo*, the **::** character indicating that the Class is within another namespace.
Allow change of Created Date	Enable the creation date on the Diagram Properties dialog to be altered.
Zoom to best scale	Resize diagrams to neatly fit the screen.
Auto-pan with middle mouse button	Turn on auto-panning using the middle mouse button. With this option off, the middle mouse button causes a different type of panning.
Scale Saved Bitmaps to	Enable Enterprise Architect to save bitmaps at a higher *resolution*, suitable for using in published works.
Image Memory Limit	Set an image memory limit when generating images for RTF or HTML and when saving images to file. It is important when you have very large diagrams, as it affects the point at which Enterprise Architect starts to scale down the image; a low memory setting means it scales the image sooner.
Diagram Frames	Select whether diagram frames are to be automatically added to images of diagrams in files saved to disk, print-outs, and the default Enterprise Architect clipboard. A diagram frame is a labeled outline around the diagram image, providing both a border and a reference. (See the *UML Dictionary*.)

16.1.3.1 Appearance

The Diagram Appearance page of the Options dialog enables you to define how diagrams and their contents appear on display.



Option	Use to
Configure Default Element Fonts	Set the default model and user text fonts 196.
Renderer	Render smooth curves and diagonal lines in diagrams, so that staggered vertical or horizontal pixels are less obvious. Select the type of renderer you prefer to use: • **Basic** is GDI32; it does not provide anti-aliasing and gradient fills • **Enhanced-1** is parallel to Windows GDI+ but internal to Enterprise Architect; it provides anti-aliasing and gradient fills, and operates well across different platforms • **Enhanced-2** is Windows GDI+; this can vary across different platforms, performing better than **Enhanced-1** in some environments, and less well in others. Experiment with these options and see which works best for your system and requirements.
Default Element Border Width	Set the default element border width (in pixels).
Scale view by	Automatically increase the size of all objects on a diagram by up to 50%, without affecting other users reading that diagram. You can perform the same function with the Zoom Slider on the Status 103 bar; changes in the 'zoomed' display scale of a diagram update this field and affect any other diagrams that you open. This has no impact any other diagram Zoom facility in Enterprise Architect.

© 1998-2010 Sparx Systems Pty Ltd

Option	Use to
Print in Color	Print your diagrams in color. Deselect the checkbox to print the diagrams in black and white.
Anti-aliased text	Force text anti-aliasing in diagrams. If you deselect the checkbox, Enterprise Architect applies the MS Windows default setting. Therefore, if you do not want to use anti-aliasing, ensure that the Windows anti-aliasing default is also set to OFF.
Compress text to fit within Element	Determine the behavior of Enterprise Architect when text at *zoom* levels other than 100% would not fit inside the boundary of an element. Enterprise Architect either compresses the text to fit within the boundary, or expands the element.
Bold Element Names	Display element names in bold text.
Element Shadows On	Display a shadow around the bottom and right edges of each element in a diagram.
Invert rotated text for metafiles	Use different text format when external metafile readers are causing issues.
Use Watermark	Add a watermark to any diagrams you print.
Text	Define the watermark text, if a watermark is to be used.
Show Gradient Fill for Paper Color	Switch between having a color gradient in the diagram background, or having a solid, uniform background color.
Gradient Fill Direction For an Element	Select the direction for the color gradient within element boxes, or **<none>** for no color gradient.

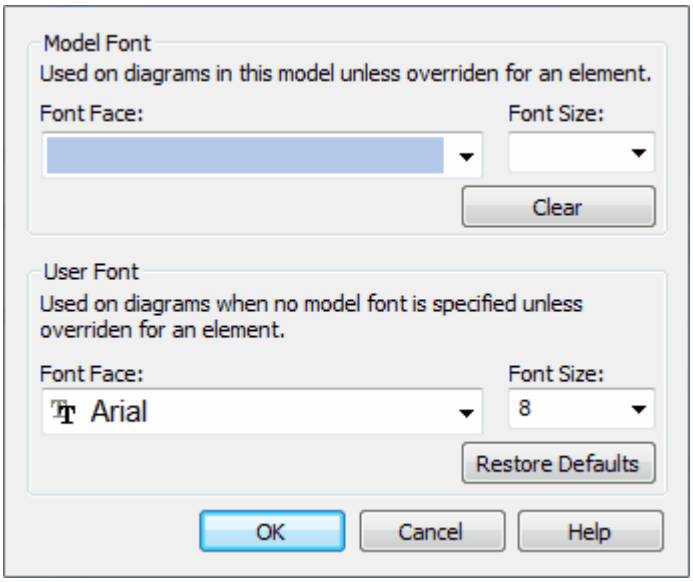
16.1.3.1.1 Set Default Fonts

Enterprise Architect enables you to define a standard font to apply across the model, or a font to apply to any diagrams you create personally. You can define both, but the model font overrides any user font, to ensure that all members of a project team have a consistent and coherent view of the model. This avoids the problem of one user creating a diagram in a small font, and another user trying to view it in a larger font, which distorts the diagram.

It is recommended that a project authority sets the model default, and all project members abide by it and do not change it without project approval.

To set the default fonts, follow the steps below:

1. On the Appearance page of the Options dialog, click on the **Configure Default Element Fonts** button. The Configure Default Fonts dialog displays.



2. To set a model font, in the **Font Face** field of the Model Font panel, click on the drop-down arrow and select the appropriate typeface.
3. In the **Font Size** field, click on the drop-down arrow and select the required font size.
4. To clear a model font so that the user font takes effect, click on the **Clear** button. (Ensure that this is acceptable to all other team members.)
5. To set a user font, in the **Font Face** field of the User Font panel, click on the drop-down arrow and select the appropriate typeface.
6. In the **Font Size** field, click on the drop-down arrow and select the required font size.
7. To return the user font to the Enterprise Architect default (Arial 8), click on the **Restore Defaults** button.
8. To save the changes, click on the **OK** button.

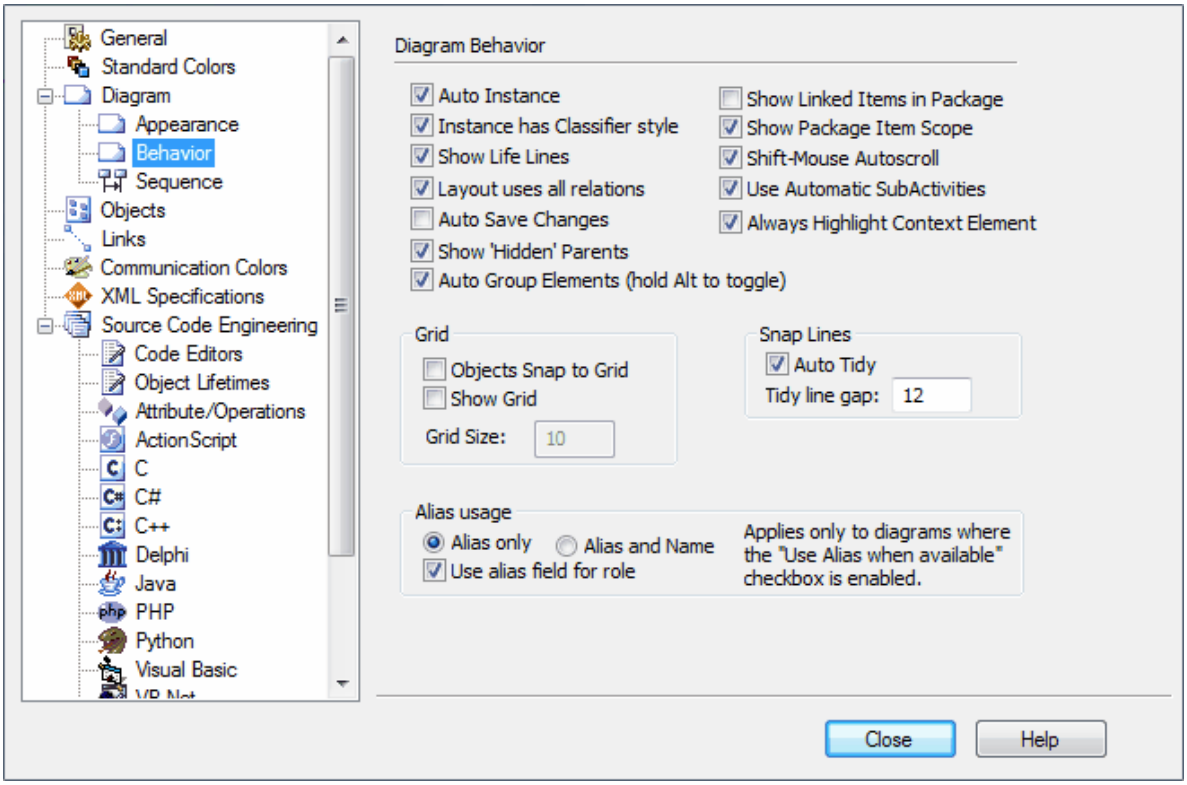
Both model and user fonts are overridden by specifically-defined element fonts, so that the element is viewed as designed regardless of the model or user defaults. To define the font for a specific element, right-click on the element in a diagram and select the **Appearance | Set Font** context menu option. See *UML Modeling with Enterprise Architect – UML Modeling Tool.*

If you cannot read the diagrams because the default font makes the objects and text too small, you can scale up all objects (that is, all diagram displays) to a more readable size. Everything on the diagram is enlarged to the same extent, so it remains in proportion and readable. To do this, return to the Diagram Appearance page of the Options dialog and enter a suitable percentage value in the **Scale view by** 195 field.

© 1998-2010 Sparx Systems Pty Ltd

16.1.3.2 Behavior

The Diagram Behavior page of the Options dialog enables you to define how a diagram responds to actions taken on it.

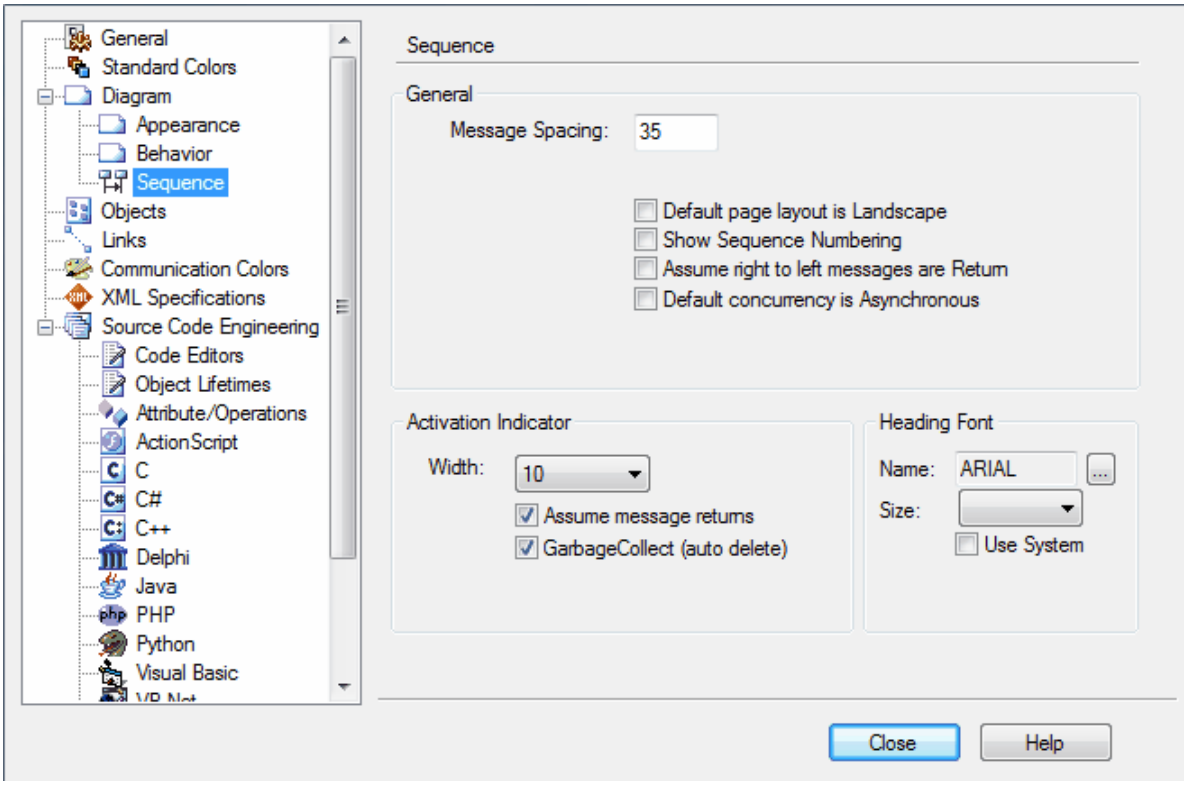


Option	Use to
Auto Instance	Automatically create object instances when dragging certain element types - such as Class and Component - from the Project Browser, with the dragged element as the classifier.
Instance has Classifier style	Automatically apply the classifier style of the element an instance is instantiated from when the instance is created.
Show Life Lines	Show life lines for Sequence elements in non-Sequence diagrams.
Layout uses all relations	Show all relationships in a diagram layout; deselect the checkbox to show only Generalizations and Associations.
Auto Save Changes	Automatically save your changes as you work, without having to confirm prompts to do so.
Show 'Hidden' Parents	Display any parents of elements in the diagram that are not part of the diagram.
Auto Group Elements	Also move visually composed elements when moving diagram nodes. A node is considered composed if it is contained by the moved element and has a higher z-order. Press and hold **[Alt]** whilst moving an element to toggle this option.
Show Linked Items in Package	Display connected items on packages.
Show Package Item Scope	Display the **+** and **-** indicators representing the scope of the items.
Shift-Mouse Autoscroll	Enable you to press and hold **[Shift]** and use the mouse to autoscroll around

Option	Use to
	diagrams.
Use Automatic SubActivities	Generate a new Structured Activity linked to the diagram from a Structured Activity diagram dragged from the Project Browser.
Always Highlight Context Element	Show a hatch border around a selected element. See *UML Modeling with Enterprise Architect – UML Modeling Tool.*
Objects Snap to Grid	Snap all elements to the grid lines.
Show Grid	Display the grid.
Grid Size	Specify the grid size, if you have selected **Objects Snap to Grid**.
Auto Tidy	Automatically tidy line angles for custom connectors. This 'nudges' the custom line into horizontal and vertical increments. See *UML Modeling with Enterprise Architect – UML Modeling Tool.*
Tidy line gap	Specify the amount Enterprise Architect should enable you to move a line away from horizontal and vertical when you are tidying lines for custom connectors. (See **Auto Tidy** above and *UML Modeling with Enterprise Architect – UML Modeling Tool*).
Alias only	Display the alias instead of the element name on elements with aliases.
Alias and Name	Display both the element name and the Alias in the format *(Alias) name*.
Use alias field for role	Replace the Alias property of instances with a Role property.

16.1.3.3 Sequence

The Sequence page of the Options dialog enables you to configure various font settings and the focus of the control indicator for Sequence diagrams.

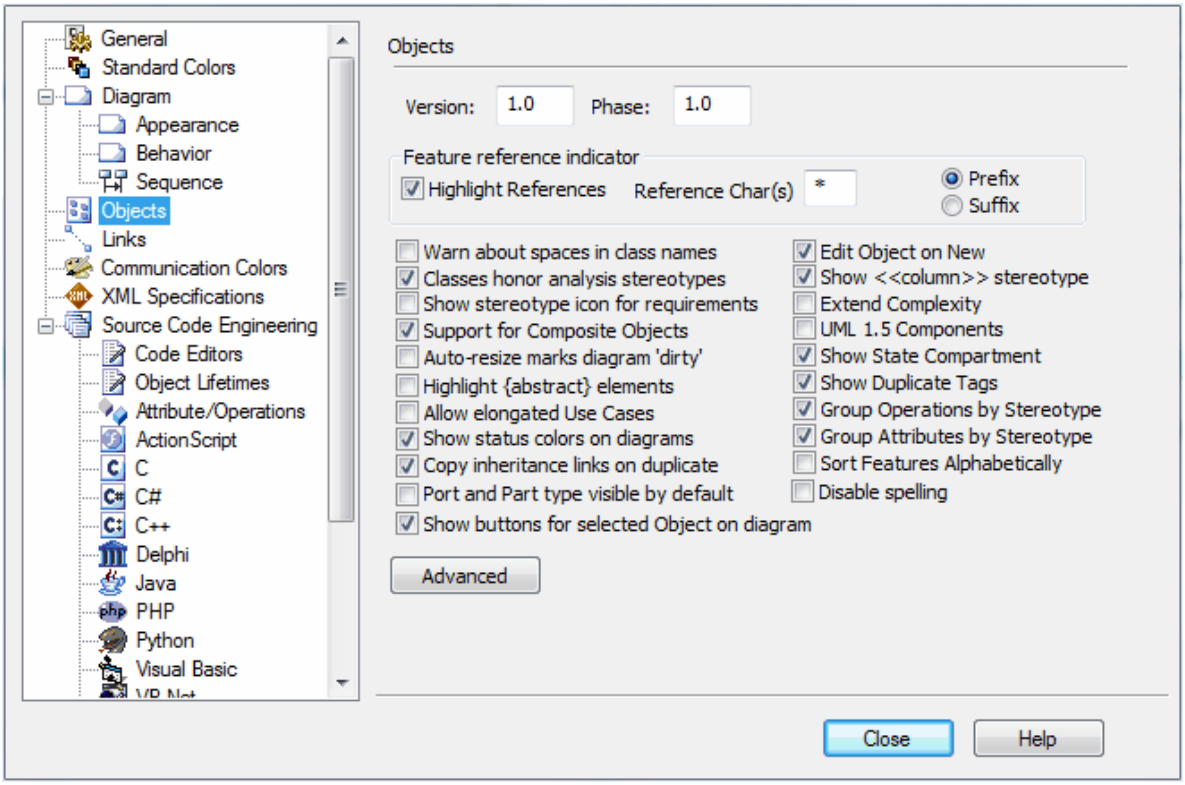


© 1998-2010 Sparx Systems Pty Ltd

Option	Use to
Message Spacing	Specify the vertical gap (in points) between Sequence messages (can be overridden manually by dragging a message up or down).
Default page layout is Landscape	Set the default orientation of Sequence diagrams to landscape.
Show Sequence Numbering	Show sequence numbers on Sequence messages.
Assume right to left messages are Return	Automatically generate return messages.
Default concurrency is Asynchronous	Set the default concurrency for Sequence Messages to **Asynchronous**; deselect to set the default concurrency to **Synchronous**. See the *UML Dictionary.*
Width	Select the line width (in points) of the 'focus of control' rectangle (thick part of lifeline).
Assume message returns	Assume implicit returns when none are explicitly drawn (recommended).
GarbageCollect	Automatically truncate lifelines for created elements after the last message (that is, assume garbage collect rather than explicit delete).
Name	Display the MS Windows Font dialog (click on **[...]**) and define the font of the caption bar heading (above your diagram); this is particularly useful for non-English character sets.
Size	Specify the size of the heading font (this overrides the font size in the Font dialog, above).
Use System	Apply the Enterprise Architect system default heading font.

16.1.4 Objects

The Objects page of the Options dialog enables you to configure how elements look and respond in diagrams.



Option	Use to
Version	Set the default version for new elements.
Phase	Set the default phase for new elements.
Highlight References	Highlight parameters in operations that are passed by reference rather than value.
Reference Char(s)	Specify a character to use for the reference.
Prefix/Suffix	Indicate whether to use the **Reference Char(s)** value as a prefix (before) or a suffix (after).
Warn about spaces in class names	Enable or hide the warning message that a Class, operation or attribute name has embedded spaces (which can cause coding problems).
Classes honor analysis stereotypes	Show Classes as their stereotype; for example, if a Class is stereotyped as a Boundary, it appears as a Boundary rather than a Class.
Show stereotype icon for requirements	Show or hide a code letter in the top right corner of Requirement (E, for external), Change (C) and Issue (I) elements.
Support for Composite Objects	Enable you to drag child elements onto parent elements in a diagram, and automatically embed them (and drag embedded child elements out of parent elements, breaking the child-parent relationship). See *UML Modeling with Enterprise Architect – UML Modeling Tool*.
Auto-resize marks diagram 'dirty'	Ensure that auto-resizing of elements (such as Classes) marks the current diagram as changed (asterisk on the diagram name tab), so it should be saved.

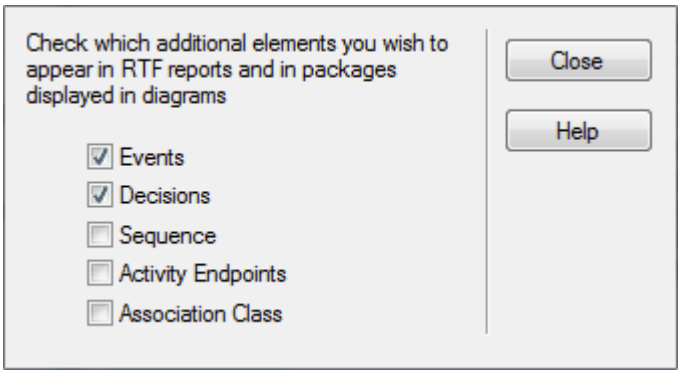
© 1998-2010 Sparx Systems Pty Ltd

Option	Use to
Highlight {abstract} elements	Highlight abstract elements with a suitable tag *{abstract}* in the top right of the Class.
Allow elongated Use Cases	Stretch Use Cases or Use Case extension points with long names to enable space for the name. If you deselect the checkbox, Use Case re-sizing is proportional.
Show status colors on diagrams	Enable color coding for Requirements and similar elements. See *UML Model Management.*
Copy inheritance links on duplicate	Duplicate Inheritance and Realization connectors when an edit/copy is performed.
Port and Part type visible by default	Enable Port and Part types to be shown by default.
Show buttons for selected Object on diagram	Display the floating toolbar buttons to the left of the selected object. For example:
Edit Object on New	Automatically show the element Properties dialog when a new element is added.
Show «column» stereotype	Hide or show the «*column*» stereotype used when data modeling.
Extend Complexity	Extend levels of complexity to five levels in the **Complexity** option in the Properties window. Otherwise only three levels are available.
UML 1.5 Components	Use UML 1.5 components (Enterprise Architect versions 4.0 and later support UML 2.x).
Show State Compartment	Show or hide the State Compartment divider under the state name.
Show Duplicate Tags	Enable duplicate tags to be shown.
Group Operations by Stereotype	Group an element's operations by their stereotype on the diagram.
Group Attributes by Stereotype	Group an element's attributes by their stereotype on the diagram.
Sort Features Alphabetically	Sort element features alphabetically. Features include Attributes, Operations, Tags, Constraints and Test Cases.
Disable spelling	Turn off automatic spell checking. Deselect to resume automatic spell checking.
Advanced	Set the visibility 202 of certain elements in reports and in diagram packages.

16.1.4.1 Element Visibility

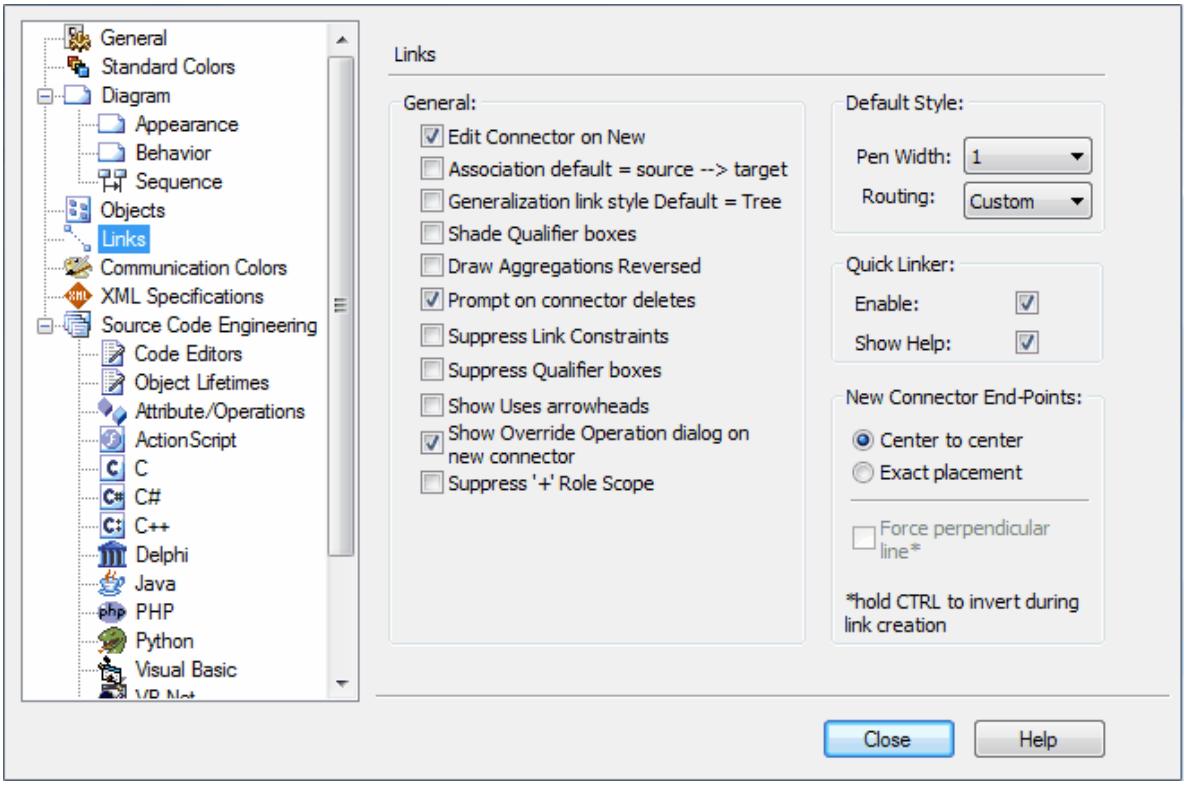
Some elements do not appear in packages and in RTF output by default. Click on the **Advanced** button on the Objects 201 page of the Options dialog to specify which elements should be visible.

See the topic on customizing element visibility in *UML Modeling with Enterprise Architect – UML Modeling Tool* for more details.



16.1.5 Links

The Links page of the Options dialog shown below provides options for the creation, behavior and notation for connectors.



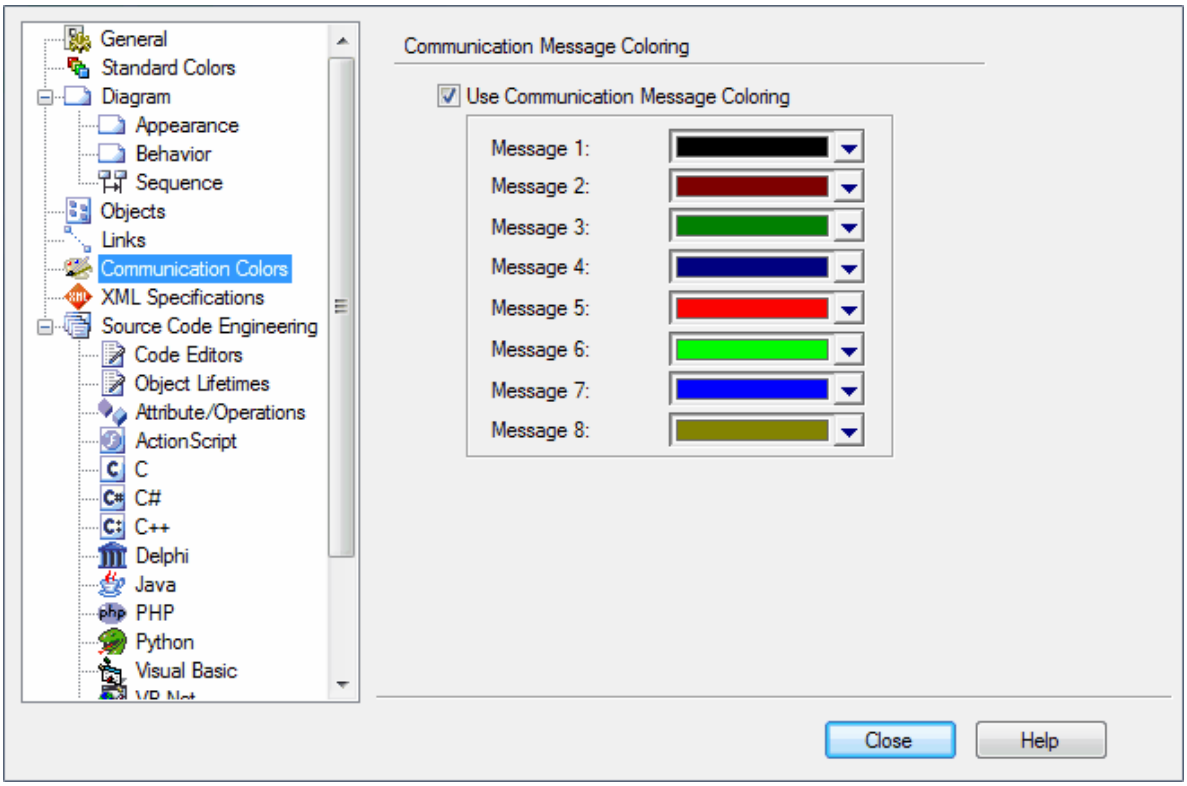
Option	Use to
General	
Edit Connector on New	Automatically show the connector Properties dialog when a new connector is added.
Association default = source --> target	Set the direction of new Associations to source->target (that is, with an arrow head at the target).
Generalization link style Default = Tree	Show Generalizations as tree style hierarchies.
Shade Qualifier boxes	Lightly shade all Qualifier boxes.
Draw Aggregations Reversed	Draw Aggregate and Composite connectors from target element to

© 1998-2010 Sparx Systems Pty Ltd

Option	Use to
	source element. When deselected (the default), these connectors are drawn from source to target. **Note:** All tools have the parent as the target and the child as the source of the connector, that is a requirement of UML; only the direction in which you drag the mouse to draw the connector is changed.
Prompt on connector deletes	Display a prompt before deleting connectors, offering the choice of hiding the connector on the diagram or deleting it completely. (See the *Working With Connectors* section of *UML Modeling With Enterprise Architect - UML Modeling Tool*.) If you deselect this option, the delete operation defaults to the last setting on the dialog.
Suppress Link Constraints	Suppress connector constraints in diagrams.
Suppress Qualifier boxes	Suppress boxes when displaying qualifiers.
Show Uses arrowheads	Show an arrowhead on Actor->Use Case Associations.
Show Override Operation dialog on new connector	Show the Override Operation dialog automatically when adding generalizations and realizations between Classes and Interfaces, if the target element has features that can be overridden.
Suppress ' + ' Role Scope	Ensure that the role and scope are not displayed on the diagram.
Default Style	
Pen Width	Set the default connector width.
Routing	Set the default connector style for new connectors.
Quick Linker	
Enable	Enable the Quick Linker 186.
Show Help	Add a 'help' menu option to the end of the Quick Linker menu.
New Connector End-Points	
Center to center	Change the position of the dashed guide line for new connectors.
Exact placement	
Force perpendicular line	

16.1.6 Communication Message Colors

The Communication Message Coloring page in the Options dialog enables you to configure the colors used in Communication diagrams. When you enable this option, Communication messages appear in different colors depending on the sequence group they belong to on a diagram; for example, 1.n are black, 2.n are red, 3.n are green.



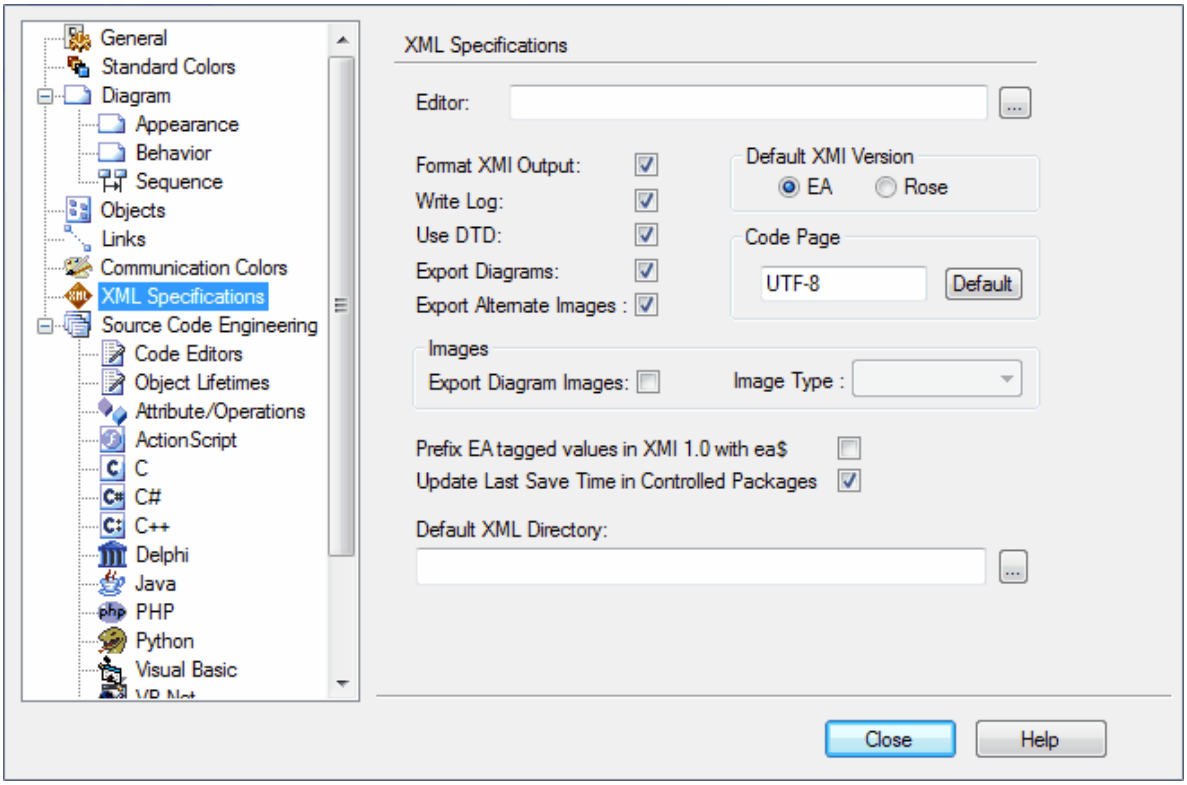
Select the **Use Communication Message Coloring** checkbox to turn on colored messages.

Click on the down arrow in each color field, and click on the appropriate color for the message group. Set the color sequence as required; the pattern repeats after 8 sequence groups.

© 1998-2010 Sparx Systems Pty Ltd

16.1.7 XML Specifications

The XML Specifications page of the Options dialog enables you to configure various settings for working with XML.



Option	Use to
Editor	Set the default editor for any XML documents you open within Enterprise Architect.
Format XMI Output	Set whether or not formatting is applied to your XMI output.
Write Log	Set whether or not to write to a log file when you import or export XML.
Use DTD	Set whether or not to use a Data Type Definition.
Export Diagrams	Set whether or not to export diagrams when you export XML.
Export Alternate Images	Set whether or not to export the alternative images used in the model when you export to XML. (See *UML Modeling With Enterprise Architect - UML Modeling Tool*.) **Note:** If this option is set, and you have packages in your model under version control, then any alternative images used in those packages are also exported to the version control repository when you check in the packages. In this case, you would **only** select the checkbox if the alternative images are subject to **frequent change**. Otherwise, do not select this option and instead use *Export/Import Reference Data* to manage alternative images. (See *UML Model Management.*)
Default XMI Version	Set the XMI version to use: Enterprise Architect or Rose.
Code Page	Set the Code Page to use; setting a NULL encoding string results in the encoding tag being entirely omitted from the XML output. Click on the **Default**

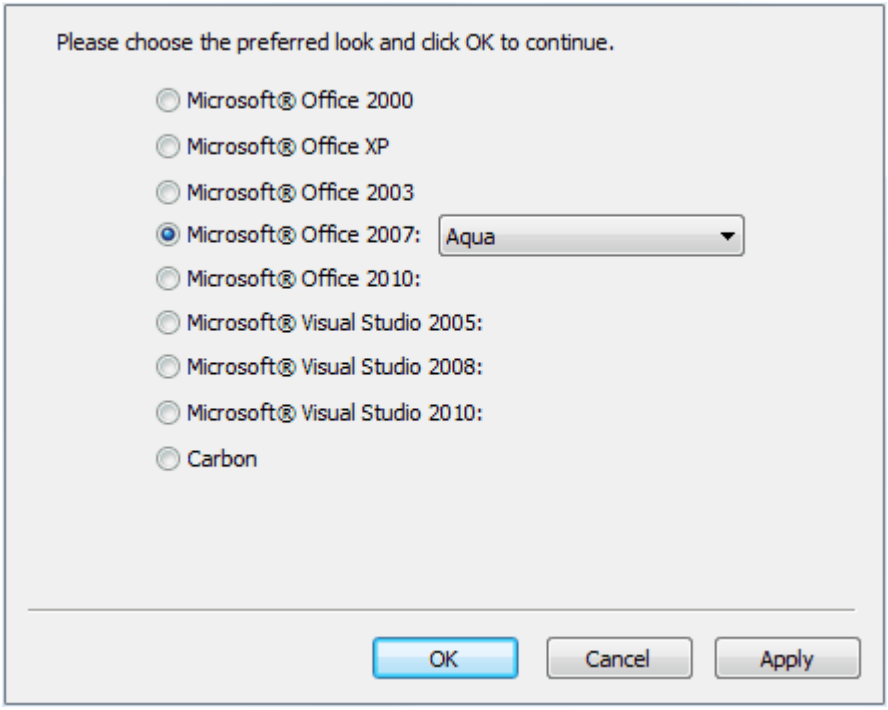
Option	Use to
	button to restore the setting to the default Code Page.
Export Diagram Images	Set whether or not to export diagrams as images when you export XML.
Image Type	Define the format of the image to export to if **Export Diagram Images** is selected.
Prefix EA Tagged Values in XMI 1.0 with ea$	Set whether or not to prefix any Enterprise Architect Tagged Values within any XMI 1.0 you create, with **ea$**.
Update Last Save Time in Controlled Packages	Set whether to update the timestamp of the last time controlled packages were saved.
Default XML Directory	Define the default XML directory to use when importing and exporting XML.

16.2 Visual Styles

You can configure the overall look and feel of Enterprise Architect to suit your working environment. Options include various Microsoft Office and Visual Studio styles, or themes.

To reset the appearance of Enterprise Architect, follow the steps below:

1. Select the **View | Visual Style | Select Visual Style** menu option. The Application Look dialog displays.



2. Select the required style from the list. If you select the **Microsoft Office 2007** radio button, you can also select from a number of base-color options.
3. To try out styles, click on the **Apply** button. To set the style and resume work, click on the **OK** button.

You can also enable customization 66 of toolbars and menus, and animate auto-hidden 138 windows.

© 1998-2010 Sparx Systems Pty Ltd

17 Keyboard Shortcuts

The table below lists the default keyboard shortcut functions within Enterprise Architect. You can also display the key combinations on the Help Keyboard dialog (or Keyboard Accelerator Map 212).

If necessary, you can change these keyboard shortcuts using the Keyboard tab of the Customize 64 dialog.

Function	Shortcut	Category
Create a new Enterprise Architect project	**[Ctrl]+[N]**	File
Open an Enterprise Architect project	**[Ctrl]+[O]**	File
Open Source File	**[Ctrl]+[Alt]+[O]**	File
Reload the current project (see *Version Control Within UML Models Using Enterprise Architect*)	**[Ctrl]+[Shift]+[F11]**	File
Print the active diagram	**[Ctrl]+[P]**	File
Undo Change	**[Ctrl]+[Z]**	Edit
Redo Change	**[Ctrl]+[Y]**	Edit
Add a single element to the clipboard list	**[Ctrl]+[Space]**	Edit
Paste element as metafile from clipboard	**[Ctrl]+[Shift]+[Insert]**	Edit
Paste element as new	**[Ctrl]+[Shift]+[V]**	Edit
Paste element(s) from the clipboard	**[Shift]+[Insert]**	Edit
Bookmark current element with red marker	**[Shift]+[Space]**	Edit
Delete selected element(s) in *diagram*	**[Delete] or [Ctrl]+[D]**	Edit
Delete selected element(s) from *model* (through diagram OR Project Browser)	**[Ctrl]+[Delete]**	Edit
Search for items in the project	**[Ctrl]+[F]**	Edit
Set focus to current window	**[Ctrl]+[Shift]+[0]**	Window
Autohide the current window	**[Ctrl]+[Shift]+[F4]**	Window
Hide the current window	**[Ctrl]+[F4]**	Window
View Project Browser	**[Alt]+[0]**	View
View Properties window	**[Alt]+[1]**	View
View System window	**[Alt]+[2]**	View
View Testing window	**[Alt]+[3]**	View
View Maintenance window	**[Alt]+[4]**	View
Display Enterprise Architect UML Toolbox	**[Alt]+[5]**	View
View Resources window	**[Alt]+[6]**	View
View Source Code window	**[Alt]+[7]**	View
View Debug Workbench	**[Alt]+[8]**	View
View Notes window	**[Ctrl]+[Shift]+[1]**	View

Function	Shortcut	Category
View Element Relationships window	**[Ctrl]+[Shift]+[2]**	View
View Rules and Scenarios (Requirements and Constraints) window	**[Ctrl]+[Shift]+[3]**	View
View Traceability window	**[Ctrl]+[Shift]+[4]**	View
View Tagged Values window	**[Ctrl]+[Shift]+[6]**	View
View Project Management window	**[Ctrl]+[Shift]+[7]**	View
View Output window	**[Ctrl]+[Shift]+[8]**	View
View Tasks Pane	**[Ctrl]+[Shift]+[9]**	View
View Pan & Zoom Window	**[Ctrl]+[Shift]+[N]**	View
View Model Search	**[Ctrl]+[Alt]+[A]**	View
View Element List	**[Ctrl]+[Alt]+[R]**	View
Open Team Review	**[Ctrl]+[Alt]+[U]**	View
Display Web Browser	**[Ctrl]+[Alt]+[W]**	View
View Element Browser	**[Alt]+[9]**	View
Add new package to project	**[Ctrl]+[W]**	Project
Add new diagram to package	**[Ctrl]+[Insert]**	Project
Add new element to package	**[Ctrl]+[M]**	Project
Create RTF documentation	**[F8]**	Project
Generate HTML Report	**[Shift]+[F8]**	Project
Generate Diagrams-only Report	**[Ctrl]+[Shift]+[F8]**	Project
Generate package source code	**[Ctrl]+[Alt]+[K]**	Project
Synchronize package contents	**[Ctrl]+[Alt]+[M]**	Project
Import source directory	**[Ctrl]+[Shift]+[U]**	Project
Package Build Scripts	**[Shift]+[F12]**	Project
Build	**[Ctrl]+[Shift]+[F12]**	Project
Test	**[Ctrl]+[Alt]+[T]**	Project
Run	**[Ctrl]+[Alt]+[N]**	Project
Deploy	**[Ctrl]+[Shift]+[Alt]+[F12]**	Project
Debug Run	**[F6]**	Project
Step Into	**[Shift]+[F6]**	Project
Step Over	**[Alt]+[F6]**	Project
Step Out	**[Ctrl]+[F6]**	Project
Debug Stop	**[Ctrl]+[Alt]+[F6]**	Project
Transform selected elements	**[Ctrl]+[H]** or	Project

© 1998-2010 Sparx Systems Pty Ltd

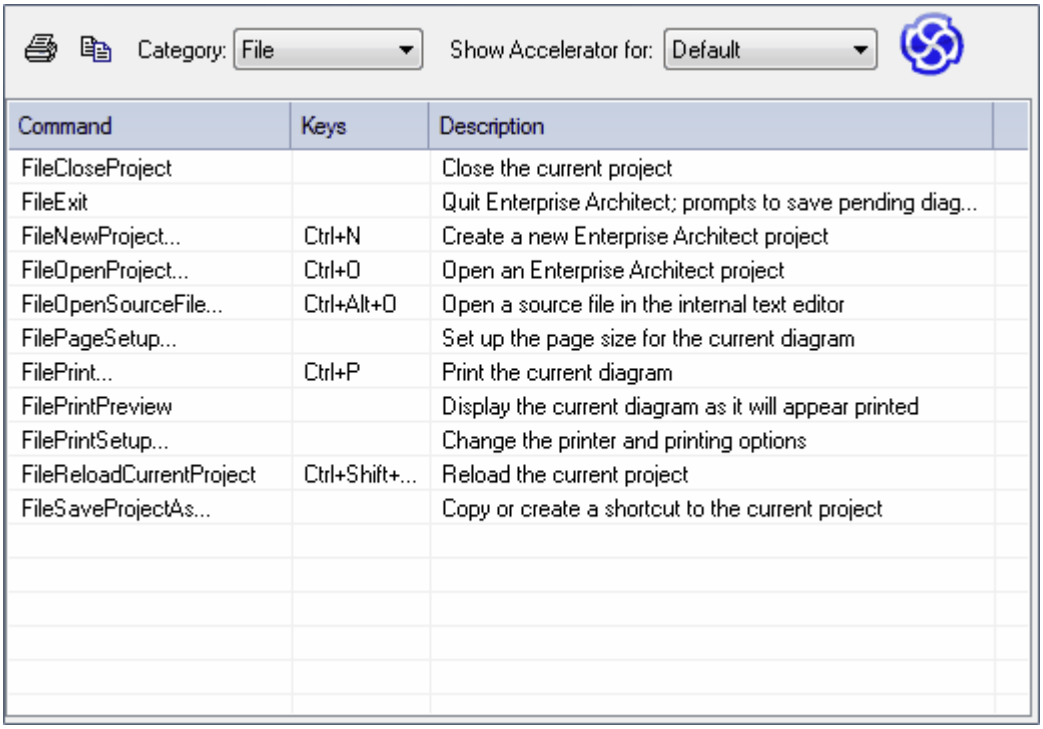
Function	Shortcut	Category
	[Ctrl]+[Alt]+[F]	
Transform current package	**[Ctrl]+[Shift]+[H]**	Project
Validate Selected	**[Ctrl]+[Alt]+[V]**	Project
Manage locks applied by current user	**[Ctrl]+[Shift]+[L]**	Project
Configure package control	**[Ctrl]+[Alt]+[P]**	Project
Import package from XMI	**[Ctrl]+[Alt]+[I]**	Project
Export package to XMI	**[Ctrl]+[Alt]+[E]**	Project
Import and export to CSV files	**[Ctrl]+[Alt]+[C]**	Project
Manage Baselines	**[Ctrl]+[Alt]+[B]**	Project
Diagram properties	**[F5]**	Diagram
Save	**[Ctrl]+[S]**	Diagram
Save image to file	**[Ctrl]+[T]**	Diagram
Save image to clipboard	**[Ctrl]+[B]**	Diagram
Visible Relations	**[Ctrl]+[Shift]+[I]**	Diagram
Locate in Project Browser	**[Shift]+[Alt]+[G]**	Diagram
Repeat last element	**[Shift]+[F3]** or **[Ctrl]+click**	Diagram
Repeat last connector	**[F3]**	Diagram
Element Properties	**[Alt]+[Enter]**	Element
Add Tagged Value	**[Ctrl]+[Shift]+[T]**	Element
Linked Document	**[Ctrl]+[Alt]+[D]**	Element
Display Attribute Properties dialog	**[F9]**	Element
Display Operation Properties dialog	**[F10]**	Element
Space elements evenly horizontally	**[Alt]+[-]**	Element
Space elements evenly vertically	**[Alt]+[=]**	Element
Add attribute	**[Ctrl]+[Shift]+[F9]**	Element
Add operation	**[Ctrl]+[Shift]+[F10]**	Element
Add other type	**[Ctrl]+[F11]**	Element
Auto-size selected elements	**[Alt]+[Z]**	Element
Generate code from element	**[Ctrl]+[G]** or **[F11]**	Element
Move element by increments	**[Shift]+[↑], [↓], [→] or [←]**	Element
Resize selected element	**[Ctrl]+[↑], [↓], [←] or [→]**	Element
Align bottom edges of selected elements	**[Ctrl]+[Alt]+[Down]**	Element
Align top edges of selected elements	**[Ctrl]+[Alt]+[Up]**	Element

Function	Shortcut	Category
Align selected elements on left boundaries	**[Ctrl]+[Alt]+[Left]**	Element
Align selected elements on right boundaries	**[Ctrl]+[Alt]+[Right]**	Element
Configure element default appearance	**[Ctrl]+[Shift]+[E]** or **[F4]**	Element
Edit selected	**[F2]**	Element
Manage embedded elements	**[Ctrl]+[Shift]+[B]**	Element
Insert new feature after current selection	**[Insert]**	Element
Locate in browser	**[Alt]+[G]**	Element
New element	**[Ctrl]+[M]**	Element
View source code 145 in default editor	**[Ctrl]+[E]** or **[F12]**	Element
Operation	**[F10]**	Element
Override inherited features	**[Ctrl]+[Shift]+[O]**	Element
Configure element properties	**[Alt]+[Enter]**	Element
Select alternative image	**[Ctrl]+[Shift]+[W]**	Element
Specify which element features are visible on a diagram	**[Ctrl]+[Shift]+[Y]**	Element
Set element parent or implement interface(s)	**[Ctrl]+[I]**	Element
Set references to other elements and diagrams	**[Ctrl]+[J]**	Element
Create Workbench Instance	**[Ctrl]+[Shift]+[J]**	Element
Locate diagrams where element is used	**[Ctrl]+[U]**	Element
View Properties dialog	**[Enter]**	Element
Check project data integrity	**[Shift]+[F9]**	Tools
Configure system options	**[Ctrl]+[F9]**	Tools
Spell check current package	**[Ctrl]+[Shift]+[F7]**	Tools
Spell check model	**[Ctrl]+[F7]**	Tools
Edit code generation templates	**[Ctrl]+[Shift]+[P]**	Settings
Edit transformation templates	**[Ctrl]+[Alt]+[H]**	Settings
Make text bullet list item	**[Ctrl]+[.]** (full stop)	Element notes
Make text numbered list item	**[Ctrl]+[1]**	Element notes
Make text bold	**[Ctrl]+[B]**	Element notes
Make text italic	**[Ctrl]+[I]**	Element notes
Make text underlined	**[Ctrl]+[U]**	Element notes
Copy text	**[Ctrl]+[C]**	Everywhere
Paste text	**[Ctrl]+[V]**	Everywhere
Cut text, or element in diagram	**[Ctrl]+[X]**	Everywhere

© 1998-2010 Sparx Systems Pty Ltd

Display Keyboard Accelerator Map

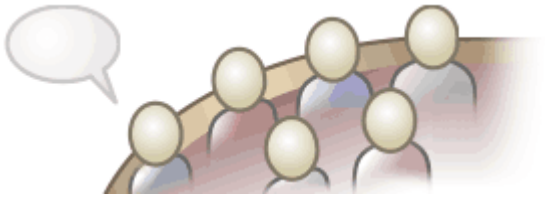
To display the key combinations for the menu functions within Enterprise Architect, select the **Help | Keyboard Accelerator Map** menu option. The Help Keyboard dialog displays.



Command	Keys	Description
FileCloseProject		Close the current project
FileExit		Quit Enterprise Architect; prompts to save pending diag...
FileNewProject...	Ctrl+N	Create a new Enterprise Architect project
FileOpenProject...	Ctrl+O	Open an Enterprise Architect project
FileOpenSourceFile...	Ctrl+Alt+O	Open a source file in the internal text editor
FilePageSetup...		Set up the page size for the current diagram
FilePrint...	Ctrl+P	Print the current diagram
FilePrintPreview		Display the current diagram as it will appear printed
FilePrintSetup...		Change the printer and printing options
FileReloadCurrentProject	Ctrl+Shift+...	Reload the current project
FileSaveProjectAs...		Copy or create a shortcut to the current project

To list the shortcuts in a particular category (see the *Command* column in the above table), click on the drop-down arrow in the **Category** field and select the appropriate category.

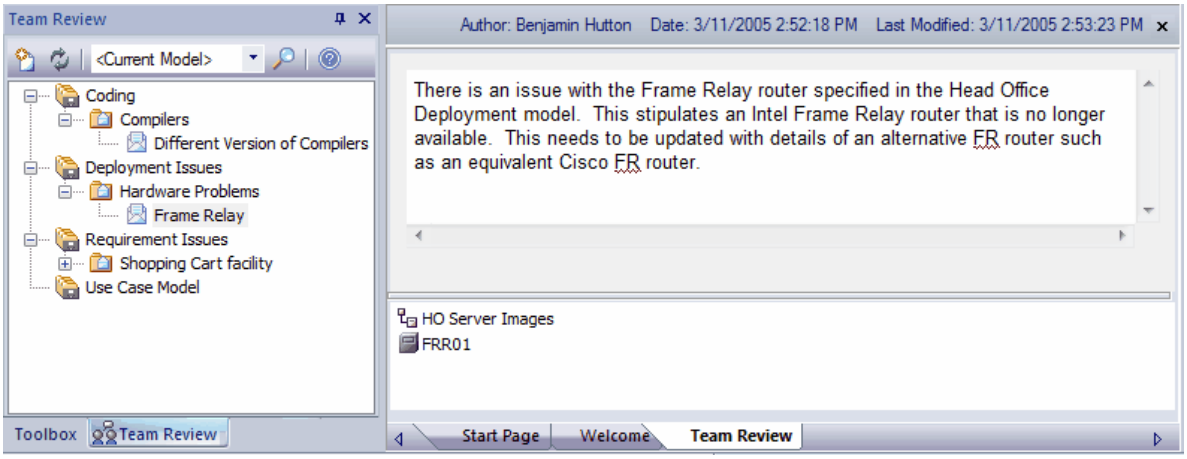
18 Team Review



The Enterprise Architect Project Team Review facility can be used to discuss the development and progress of a project.

To access the Team Review, either:

- Select the **View | Team Review** menu option, or
- Press **[Ctrl]+[Alt]+[U].**



The Team Review facility has three main displays:

- The Team Review window is used to create new categories 216 and topics 217 and to delete 219 messages, using a context menu 214. This is a dockable 140 window. Each item in the hierarchy displays a mouse-over tooltip, showing the item title, the author's name and the date and time the item was created.
- The Team Review tab, in the main work area, is used to view, print, create 217, edit 219, and reply to 219 review posts. This tab has a status bar that shows the item author's name, the date and time the item was created, and the date and time the item was last modified.
- The linked objects panel, located at the bottom of the Team Review tab, is used to associate model elements 221, diagrams, external files and other postings, with a review posting.

You can create text to explain Categories and Topics, and you can create and respond to Posts and replies. To *display* or *edit* the text on the Team Review tab, click on the item name in the Team Review window.

Using the **Search** icon in the Team Review toolbar, you can also search for text strings in the item titles 222, to enable you to locate posts on a specific topic.

As well as *linking* elements and diagrams to a Post, you can also add resources 221 to a Category, Topic or Post. Such resources, which include diagram images and XMI files of packages, are held in a *Resources* folder under the selected Team Review item.

The icons beside the review items have the following meanings:

Post read

Post unread

Reply read

Reply unread

© 1998-2010 Sparx Systems Pty Ltd

Category (name in bold indicates category is unread)

Topic read

Topic unread

Resources folder for a Category, Topic or Post

Diagram or clipboard image within *Resources* folder

XMI File of package, within *Resources* folder.

18.1 Context Menu

The **Team Review** context menu enables you to access the following functions.

Option	Use to
New Category **New Topic** **New Post**	Add a new Category 216, new Topic 217 or new Post 217 to the Team Review. Alternatively, for a Topic or Post, click on the **New** icon in the window toolbar.
New Category From Template **New Topic from Template** **New Post from Template**	Add a new Category 216, new Topic 217 or new Post 217, based on a defined template.
Post Reply	Create a reply 219 to the selected Post. Alternatively, click on the **New** icon in the window toolbar.
Rename [F2]	Edit the name, in situ, of the currently-selected item.
Copy Path to Clipboard	Copy the path 222 of the currently-selected item to the clipboard.
Show Contents	Display the description or text of the selected item in the Team Review window, if the Team Review tab is not yet open.
Share Resource	(If anything other than a *Resources* 221 folder is selected.) Add a package from the current model, or an image of the currently-displayed diagram, or an image from the clipboard, to the *Resources* folder under the selected Category, Topic or Post. If the *Resources* folder does not exist, this option creates it.
Add Package From Current Model	(If a *Resources* 221 folder is selected.) Export a package as an XMI file from the current model as a resource of the selected Category, Topic or Post. You browse for and select the required package using the Select <item> dialog. (See the *Working With Elements* section of *UML Modeling With Enterprise Architect - UML Modeling Tool.)*
Import to Current Model	(If a package XMI file resource is selected.) Import the resource package to the current model. You browse for and select the required target package using the Select <item> dialog. The resource is imported as a child of that package. This is a useful option for transferring relevant packages from the Team Review of one model into another model.
Add Image of Active Diagram	(If a *Resources* 221 folder is selected.) Add an image of the currently-displayed diagram as a resource of the selected

Option	Use to
	Category, Topic or Post. You are prompted to provide a reference name for this image.
Add Active Profiler Report	(If a *Resources* 221 folder is selected.) Add an active Profiler Report as a resource of the selected Category, Topic or Post. You are prompted to browse for and select the appropriate active report.
Image From Clipboard	(If a *Resources* 221 folder is selected.) Add an image held on the clipboard as a resource of the selected Category, Topic or Post.
View Image	(If a diagram image resource 221 is selected.) Open the View Image window, containing an image of the selected diagram. Alternatively, double-click on the image name.
Copy Image To Clipboard	(If an image resource 221 is selected.) Copy the image or diagram image to the clipboard.
Refresh Category 'xyz' **Refresh Topic 'xyz'** **Refresh Post 'xyz'**	Refresh the currently-open Category, Topic or Post, getting new replies, Posts and Topics that other users might have created. However, if you open another Category, Topic or Post the Team Review always displays the latest information from the database. Alternatively, click on the **Refresh** icon in the window toolbar.
Reload Current Connection	Reload the entire Team Review connection, getting new Categories, Posts and Topics.
Review Status	Assign or clear a status marker against the selected Category, Topic or Post. You can mark the item as: • **Awaiting Approval** • **Approved** • **Rejected** Or clear the marker (**None**).
Mark	See the **Mark** submenu, below.
Connections...	Access other Team Reviews 223 from other Enterprise Architect models or models located on servers. Alternatively, click on the drop-down arrow in the **Connection Options** field in the window toolbar, and select one of the listed models. The **<Configure Connections>** option enables you to add and connect to additional Team Reviews.
Options...	Change the loading behavior 223 of the Team Review.
Delete Category <xyz> **Delete Topic <xyz>** **Delete Post <xyz>** **Delete Resource <xyz>**	Delete 219 this Category, Topic, Post or reply and all sub-topics and sub-posts, or delete the resource attached to the item.

The Mark Submenu

All items as Read	Mark the entire contents of the Team Review as read 213.
All items as Unread	Mark the entire contents of the Team Review as unread 213.

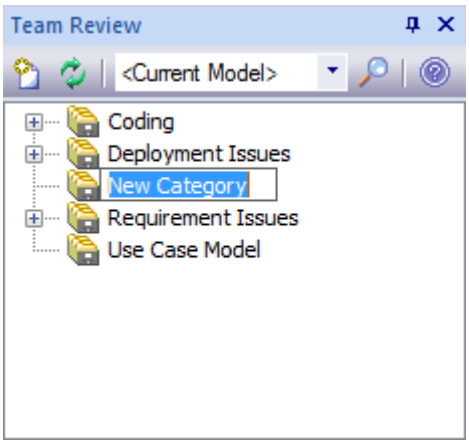
© 1998-2010 Sparx Systems Pty Ltd

All items as Read	Mark the entire contents of the Team Review as read 213.
Branch as Read	Mark this item and all its contents as read.
Branch as Unread	Mark this item and all its contents as unread.
'xyz' as Unread	Mark only this item as unread.

18.2 Add a New Category

To create a new *Category*, follow the steps below:

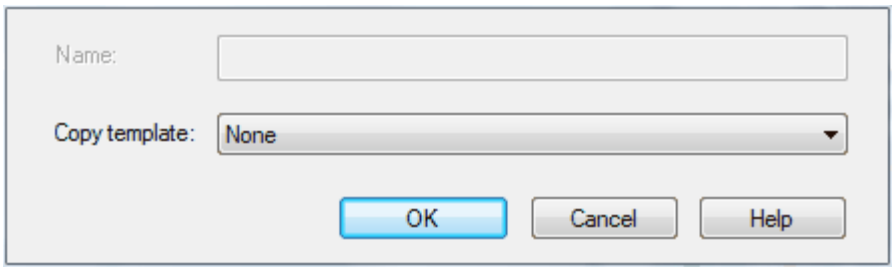
1. Right-click on a blank area in the Team Review window and select the **New Category** context menu 214 option. A new Category icon displays in the hierarchy.



2. Type the name of the Category in the field just after the icon, and click off the name. The Category description is displayed in the Team Review tab. Type the appropriate Category description as required.

Alternatively:

1. Right-click on a blank area in the Team Review window and select the **New Category from template** context menu 214 option. A new Category icon displays in the hierarchy.
2. Type the name of the Category in the field just after the icon, and click off the name. The Create New Category dialog displays.



3. Click on the **Copy template** drop-down arrow and select a predefined template for the Category description.
4. Click on the **OK** button.
5. The Category description is displayed in the Team Review tab. Amend the Category description within the template, as required.

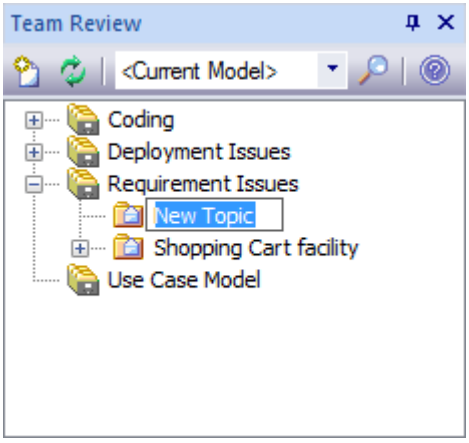
The Category is now available to add new topics 217.

18.3 Add a New Topic

To create a new *Topic*, follow the steps below:

1. Either:
   - Right-click on the appropriate Category name in the Team Review window and select the **New Topic** context menu 214 option, or
   - Click on the Category name and on the **New** icon in the Team Review toolbar, or
   - Click on the Category name and press **[Ctrl]+[N]**.

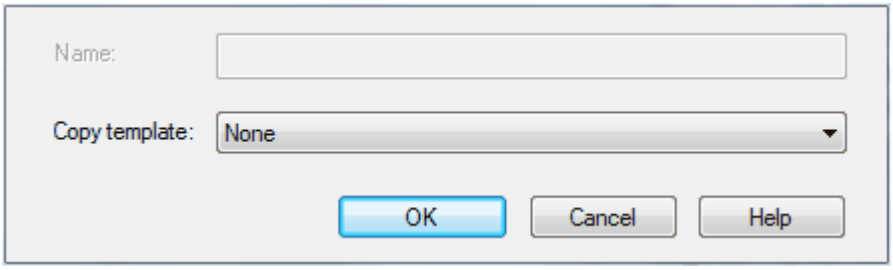
   A new Topic icon displays in the hierarchy.



2. Type the name of the Topic in the field just after the icon, and click off the name. The Topic description is displayed in the Team Review tab. Type the appropriate Topic description as required.

Alternatively:

1. Right-click on the appropriate Category name in the Team Review window and select the **New Topic from template** context menu 214 option. A new Topic icon displays in the hierarchy.
2. Type the name of the Topic in the field just after the icon, and click off the name. The Create New Topic dialog displays.



3. Click on the **Copy template** drop-down arrow and select a predefined template for the Topic description.
4. Click on the **OK** button.
5. The Topic description is displayed in the Team Review tab. Amend the Topic description within the template, as required.

The topic is now available for you or any other user to create Posts 217 concerning the Topic, in the Team Review window.

18.4 Add a New Post

To create a new Post on a Topic in the Team Review, you have three options:

- Create a blank Post
- Create a Post based on a predefined template

© 1998-2010 Sparx Systems Pty Ltd

- Create a Post from a file link.

When you have created the Post you can create and edit text in it. You can also create links 221 to elements and diagrams from the Project Browser, Model Search 121 dialog, Model Views 113 window and Element List 108, or you can link to related Team Review Categories, Topics or Posts. You can also insert links to external files, either in the text of the Post or in the links panel.

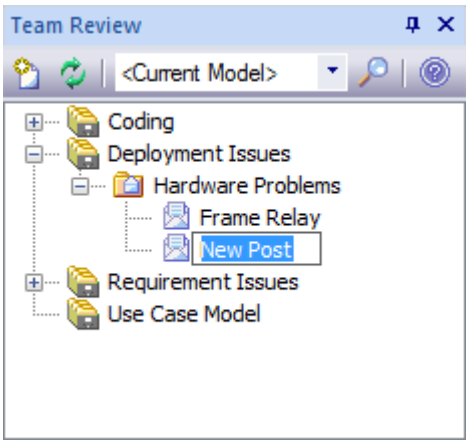
When you have saved the Post, other users can then reply to it 219.

Blank Post

To create a blank message into which you can type text exactly as you require, follow the steps below:

1. Either:
   - Right-click on the appropriate Topic name in the Team Review window and select the **New Post** context menu 214 option, or
   - Click on the Topic name and on the **New** icon in the Team Review toolbar, or
   - Click on the Topic name and press **[Ctrl]+[N]**.

   A new Post icon displays in the hierarchy.

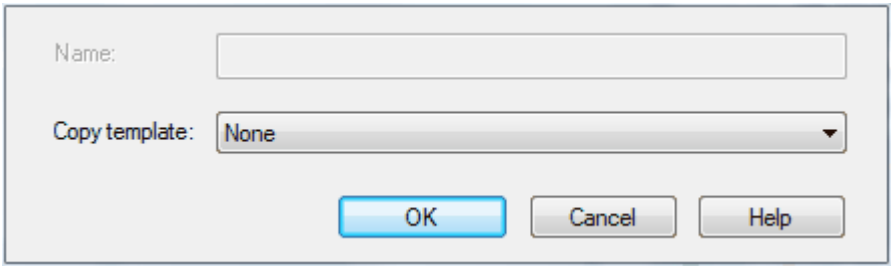


2. Type the name of the Post in the field just after the icon, and click off the name. The Post text is displayed in the Team Review tab.

Post Based On Template

To create a structured Post based on a predefined template, follow the steps below:

1. Right-click on the appropriate Topic name in the Team Review window and select the **New Post from template** context menu 214 option. A new Post icon displays in the hierarchy.
2. Type the name of the Post in the field just after the icon, and click off the name. The Create New Post dialog displays.



3. Click on the **Copy template** drop-down arrow and select a predefined template for the Post contents.
4. Click on the **OK** button.
5. The template structure is displayed in the Team Review tab.

Post From External File Link

To create a Post based on a link to an external file, follow the steps below:

1. Open a file browser (such as Windows Explorer) and locate the file.

2. Click on the file name and drag it onto the appropriate Topic name in the Team Review window.

A 'New Post' item is created underneath the selected Topic, and the body of the Post is created in the Team Review tab. A link to the source file is created at the start of the message.

You can create and edit text around the file link, and add further links if required. You should also rename the 'New Post' item, by clicking twice on it.

18.5 Reply to a Post

To reply to a post, follow the steps below:

1. Either:
   - Right-click on the Post name in the Team Review window and select the **Post Reply** context menu 214 option, or
   - Click on the Post name and on the **New** icon in the Team Review toolbar, or
   - Click on the Post name and press **[Ctrl]+[N]**.

   A 'Re:<Postname>' entry displays in the Team Review hierarchy, underneath the Post you are replying to, and the cursor becomes active in the Team Review tab to enable you to create and edit 220 your response.
2. Type in, format and save the contents of the reply.

Alternatively:

1. Open a file browser and locate the required file.
2. Drag the file name onto the Post to which you are replying. A 'Re:<Postname>' entry displays in the Team Review window underneath the Post, and the body of the reply is created in the Team Review tab. A link to the source file is created at the start of the message.
3. You can create and edit text around the file link, and add further links if required.

You can also create links to 221 elements and diagrams in the Project Browser, Model Search 121 dialog, Model Views 113 window and Element List 108, or you can add related Team Review Categories, Topics or Posts. You can also insert other links to external files, either in the text of the Post or in the links panel.

Other users can reply to the Post and to your response.

18.6 Edit an Item

To edit a Category, Topic, Post or reply, simply click on the item text in the Team Review tab.

The cursor becomes active in the Team Review tab to enable you to edit 220 your response. Modify any relevant details.

If it is just the name of the item that requires changing, click on the name and press **[F2]**. You can now retype the name in place.

Delete Team Review Items

To delete a Category, Topic, Post or reply, right-click on the item in the Team Review window and select **Delete <item> <name>** from the context menu 214.

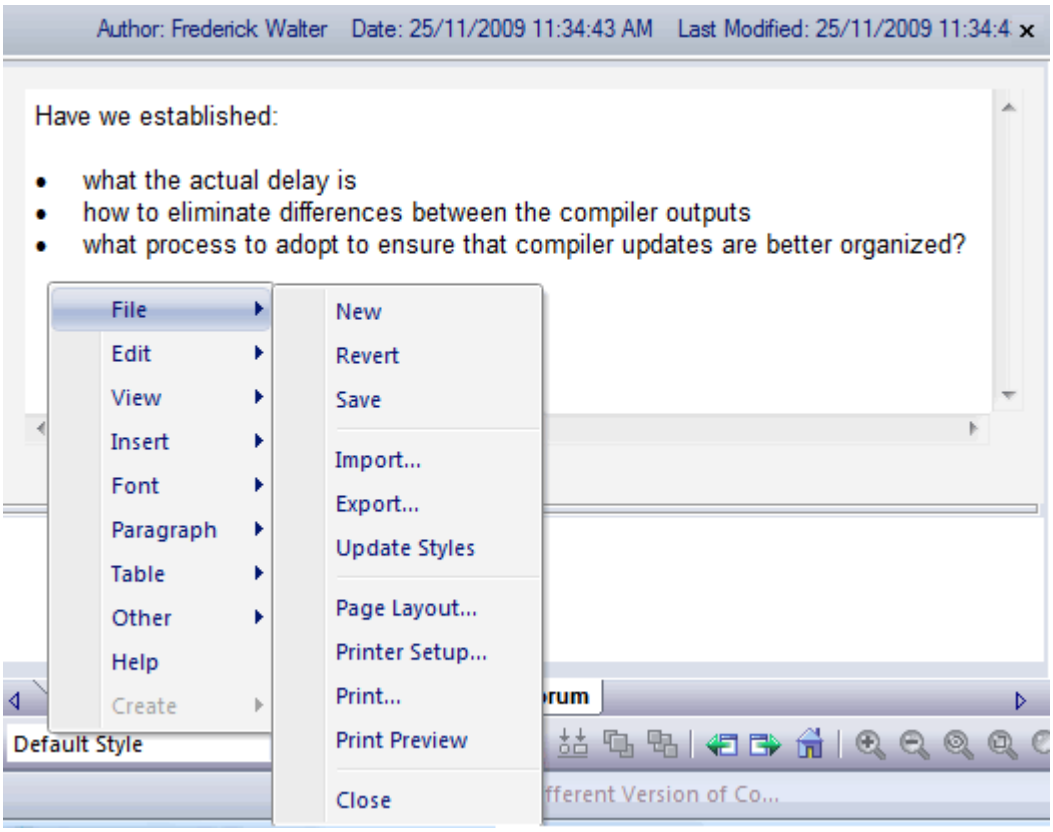
Alternatively, click on the item and press **[Delete]**.

A confirmation dialog displays. Click on the **Yes** button; the item and any dependent items are removed from the Team Review.

© 1998-2010 Sparx Systems Pty Ltd

18.7 Team Review Editor

The *Team Review Editor* provides the means for creating and editing explanatory text for Categories 216 and Topics 217, and message text for Posts 217 and Replies 219.



The editor provides a set of standard functions that you access by right-clicking on the text, to display a hierarchy of context menus. The following topics (in *Report Creation in UML Models)* provide assistance on using the Team Review Editor.

- Scroll Through Text
- File and Print Options
- Cut and Paste Options
- Image and Object Imports
- Character Formatting
- Paragraph Formatting
- Tab Support
- Page Breaks and Repagination
- Insert Headers and Footers
- Insert Bookmarks
- Table Commands
- Sections and Columns
- Stylesheets and Table of Contents
- Text/Picture Frame and Drawing Objects
- View Options 107
- Search/Replace Commands
- Hyperlink From Linked Document
- Create Elements From Linked Documents

When you have completed your editing, select the **File | Save** menu option and then click on another item in the Team Review window to exit the message.

The text is saved in the Team Review item. To display the text in the Team Review tab, click on the item once.

18.8 Add Object Links

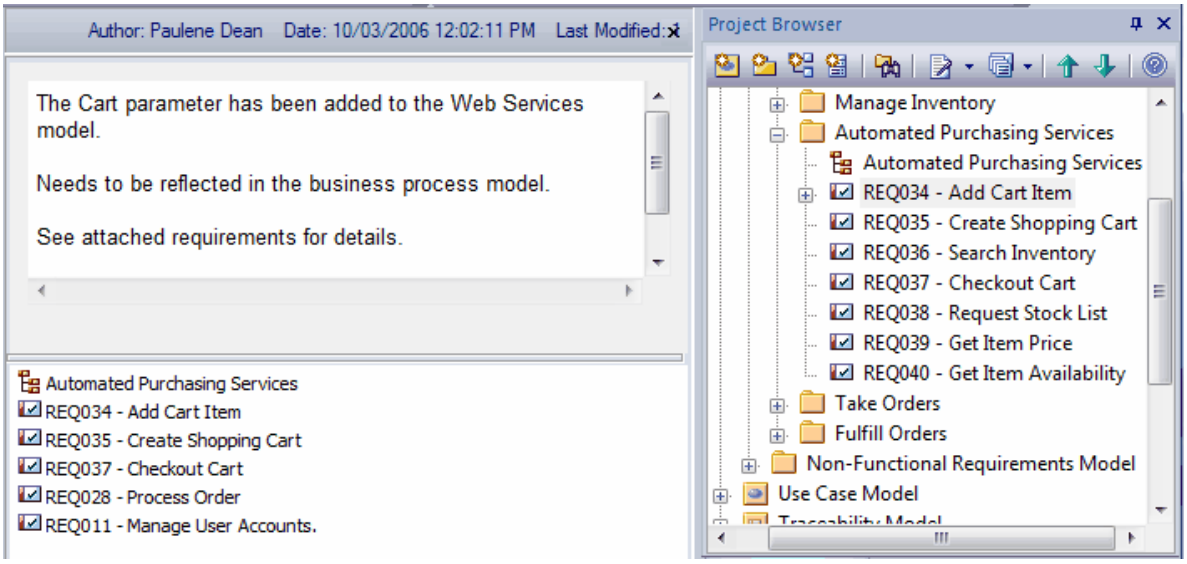
In the Team Review tab you can create hyperlinks to elements and diagrams that are associated with a Post. This enables rapid navigation to the objects in the Project Browser, access to the element properties and, with diagrams, the ability to open the diagram directly from the Team Review. You can also create links to:

- Other Categories, Topics and Posts in the Team Review window
- External files from a file browser.

To associate an element, diagram or Team Review item with the message, drag the object from the Project Browser, Element List, Model Views window, Model Search dialog or Team Review window into the linked elements panel at the bottom of the Team Review tab.

To associate an external file with the message, click on and drag the file name from any browser into either the linked elements panel or the text of the message itself (although they behave in exactly the same way). The filename becomes a link to the file; click on it to display the contents of the file.

The external file name also becomes a link to the file within the message when you drag the filename onto a Topic to create a post 217.



To access the navigation options of each object in the linked elements section, right-click on the object to display the navigation context menu. The options are outlined in the table below.

Option	Use to
Open	Open the diagram or external file.
Properties	Display the element properties for the selected element.
Find in all Diagrams	Open the diagram in which the element is used, or display a list of several diagrams in which the element has been used.
Delete Link	Delete the association between the message and the object.

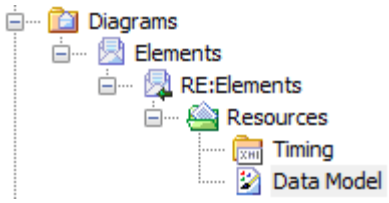
18.9 Team Review Resources

You can add resources to a Category, Topic or Post within the Team Review window. These resources include:

- XMI files of packages within the current project
- Active Profiler reports
- Images of currently-active diagrams.

© 1998-2010 Sparx Systems Pty Ltd

The resources are created in a *Resources* folder underneath the selected Category, Topic or Post, as illustrated below:



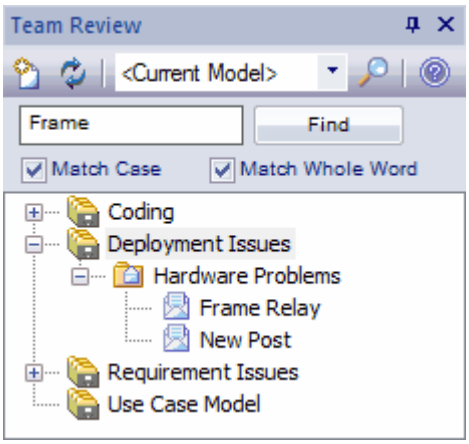
You create the *Resources* folder by creating a resource underneath the selected Category, Topic or Post. Similarly, you delete the *Resources* folder by deleting the last resource within it. Having added a resource, you can reimport the package XMI files to the model or display the diagram images

All Team Review resource management tasks are performed using options on the Team Review context menu 214.

18.10 Search Team Review

The Team Review provides the facility to search the *titles* of all Team Review items, to enable you to locate items referring to a specific subject. To do this, follow the steps below:

1. In the Team Review window toolbar, click on the **Search** icon ( ). The search panel displays underneath the toolbar.



2. In the blank field, type the text string to search for.
3. If required, select the **Match Case** checkbox to locate text with the same case as the search string.
4. If required, select the **Match Whole Word** checkbox to locate only complete words that match the search string.
5. Click on the **Find** button. The search locates the first instance of the search string in the title of a Category, Topic, Post or Reply item, and displays the contents of that item in the Team Review tab.
6. To locate further instances of the text string, click on the **Find** button again.
7. To close the search panel, click on the **Search** icon in the toolbar again.

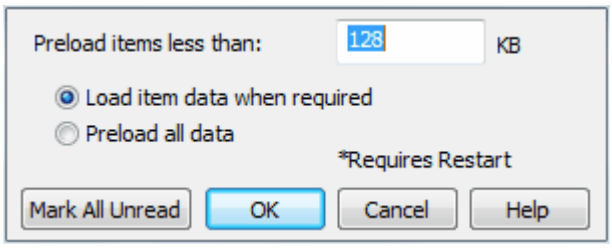
18.11 Copy Path to Clipboard

To copy the current path in the Team Review window to the clipboard, right-click on the appropriate item in the window and select the **Copy Path To Clipboard** context menu 214 option. Alternatively, press **[Ctrl]+[C]**.

The clipboard now contains the path to the selected item in the Team Review. You can paste the path into a document or file to add the discussion to any text concerning the item.

18.12 Team Review Options

To change the loading behavior of the Team Review, right-click on the Team Review window and select the **Options** context menu option. The Team Review Server Options dialog displays.



From here you can:

- **Mark All Unread -** Resets all posts you have read to 'unread' (bolds all items in the Team Review)
- **Load item data when required -** The fastest loading option; Team Review data is only loaded on demand - for example, when you read a post
- **Preload all data -** Caches the entire contents of the Team Review on load; this takes longer to load but, once completed, navigating the Team Review is faster.

18.13 Team Review Connections

The **Connections** option enables you to access other Team Reviews from other Enterprise Architect models, including models located on servers. There are two methods of accessing other Team Reviews:

- Through the Team Review Toolbar
- From the Team Review context menu options.

Toolbar

To switch to another Team Review via the toolbar, follow the steps below:

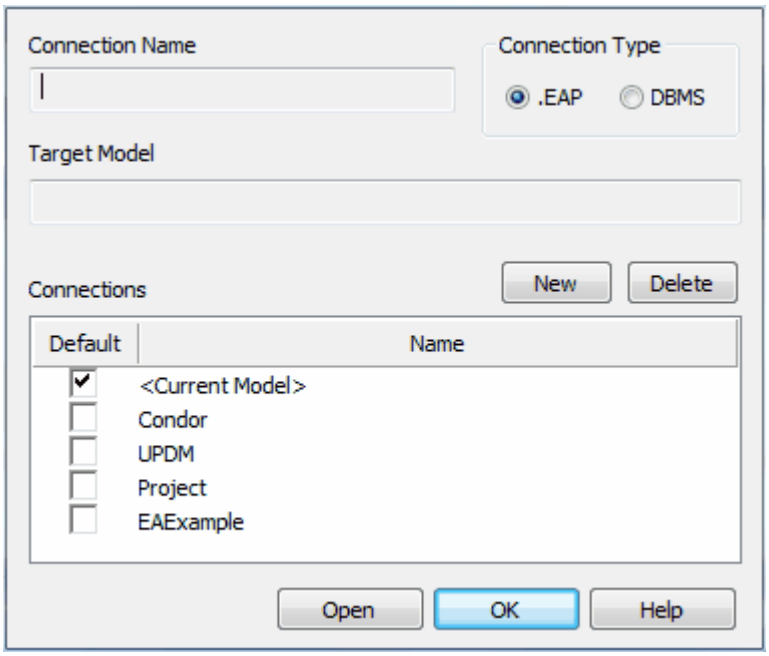
1. Click on the drop-down arrow in the **Connection Options** field in the toolbar.
2. Select the appropriate model name from the list to connect to the Team Review for that model.
3. If the required model is not listed, click on the **<Configure Connections>** option. The Team Review Server Connections dialog displays.
4. Go to step 4 224 of the procedure below.

Context Menu Option

To switch to another Team Review via the Team Review context menu, follow the steps below:

1. Right-click anywhere in the Team Review window and select the **Connections** context menu option. The Team Review Server Connections dialog displays.

© 1998-2010 Sparx Systems Pty Ltd



2. In the list in the Connections panel, select the check box against the appropriate model name to connect to the Team Review for that model.
3. Click on the **Open** button. The connection now switches to the Team Review in the selected model.
4. If the required model is not listed, select the appropriate Connection Type radio button and click on the **New** button.
   - For a .eap file, a browser dialog displays, through which you can search for and select the appropriate model.
   - For a model in a DBMS data repository, the Microsoft Data Link dialogs display, to enable you to locate and connect to the repository.
5. When you have selected and opened or connected to the required Enterprise Architect model, and returned to the Team Review Server Connections dialog, the model name displays in the **Connection Name** field and in the Connections panel.
6. Select the check box against the model name and click on the **Open** button to connect to the Team Review for that model.

The Team Review now shows the discussion in the selected model.

For further details of the fields and buttons on the Team Review Server Connections dialog, refer to the table below.

Option	Use To
Connection Name	Verify the name of the selected model.
Connection Type	Specify the type of Enterprise Architect model: a local .EAP file (as above) or a model on a remote server (see *UML Model Management*).
Target Model	Verify the path to the selected model.
New	Create a new Team Review connection.
Delete	Delete the currently selected connection from the Connections list.
Connections	List all Team Review connections created. Click on the checkbox against the required connection.
Open	Switch the Team Review to the one selected in the Connections list.

19 Spell Checking

Enterprise Architect provides a powerful spell checking facility. This operates at the project level and enables you to quickly spell check an entire project.

The spell checker can be set to run automatically, so that it highlights possible errors in text as it is created or pasted in. To turn automatic spell checking on and off, select the **Tools | Options** menu option, click on the **Objects** option in the page hierarchy, and then deselect or select the **Disable spelling** checkbox.

See Also

- Using the Spell Checker 225
- Correcting Words 226
- Select Language 227

19.1 Using the Spell Checker

Enterprise Architect has an inbuilt spell checker.

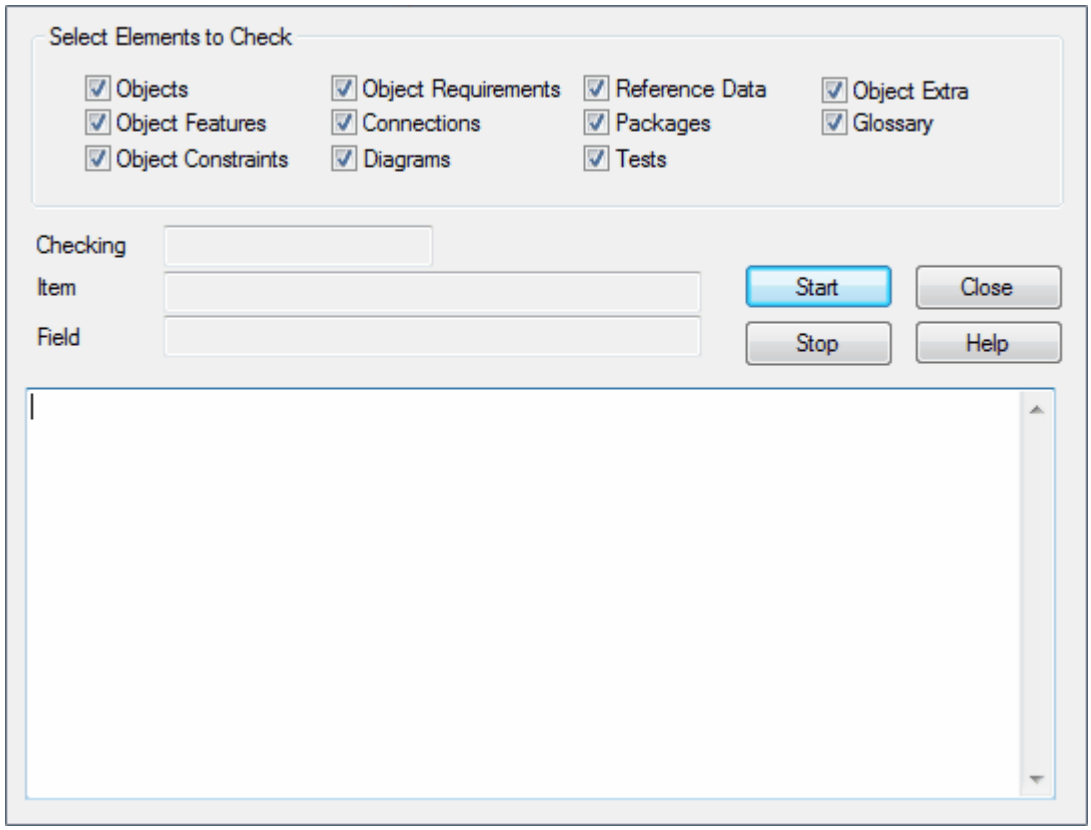
Notes:

- Enterprise Architect currently supports checking an entire model, and spell checking by single package. A future release will support more detailed spell checking at the element and diagram level.
- In the Corporate, Business and Software Engineering, Systems Engineering and Ultimate editions of Enterprise Architect, if security is enabled you must have **Spell Check** permission to spell check a package and set the spell check language. See *User Security in UML Models.*

To perform a spell check, follow the steps below:

1. Select the **Tools | Spell Check Project** or **Tools | Spell Check Current Package** menu option, depending on which level of spell check you require. The Spell Check dialog displays.

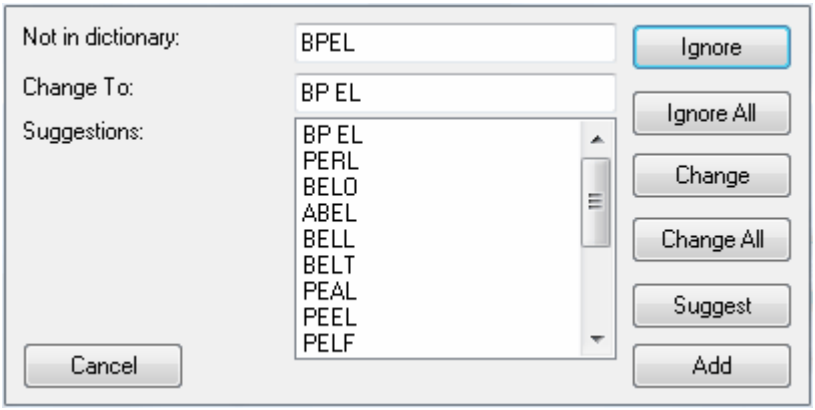
© 1998-2010 Sparx Systems Pty Ltd



Note:

The **Spell Check Project** menu option enables you to check spelling for the entire project, whereas the **Spell Check Current Package** option only checks the package currently open, and does not enable you to select the options shown above.

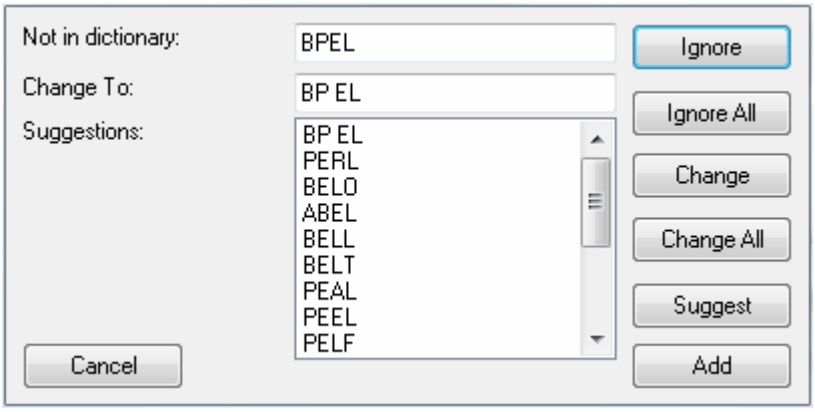
2. Select the checkbox against each of the items to spell check within your model.
3. Click on the **Start** button to begin the spell check.
4. As the spell check proceeds, the text being checked displays in the visible edit area. If an error is detected, the Check Spelling dialog displays, offering several options 226 to correct the error.



19.2 Correcting Words

As the spell check progresses, Enterprise Architect highlights any errors or unknown words in the Check Spelling dialog. This enables you to correct the spelling of a word, ignore the error, add the word to a user dictionary, suggest alternatives or otherwise assist in the spelling correction process.

The inbuilt spell check stores user-defined words in the User Dictionary (*userdict.tlx*) stored in the Enterprise Architect installation directory. During the spell check process, if you add a word, it is written into this file for later reference.



To correct the current word you can:

- Modify the spelling by hand and click on the **Change** or **Change All** button to change the word to that spelling
- Click on a suggested alternative and click on the **Change** or **Change All** button to change the word to that spelling
- Click on the **Ignore** or **Ignore All** button to exclude the word from the spell check
- Click on the **Add** button to add the word to the current user dictionary
- Click on the **Suggest** button to list alternative spellings or words
- Click on the **Cancel** button to abort the spell check entirely.

19.3 Select a Different Language

Enterprise Architect is supplied with two dictionaries, for US English and British English. Additional dictionaries are available as a set, for download from the registered area of the Sparx Systems website. Once you have downloaded and installed the language pack of dictionaries, you can select another language in which to perform the spell check.

To download the additional language dictionary pack:

1. Access this registered user page on the Sparx Systems web site.
2. At the end of the page, download the (*EADict.zip*) file from the Enterprise Architect Dictionary section.
3. Unzip the file into the Enterprise Architect install directory (*C:\Program Files\Sparx Systems\EA*).

This makes the non-English spelling dictionaries available to the Enterprise Architect spell checker.

To select another language for the spell checker in Enterprise Architect, follow the steps below:

1. Select the **Tools | Spelling Language** menu option. The Spell Check Language dialog displays.

© 1998-2010 Sparx Systems Pty Ltd

2. Click on the radio button for the required language dictionary to use.
3. Click on the **OK** button. The selected language remains the current language until changed.

Index

- A -

Access
  Email 135
  Internet Search Engine 135
  Web Site 135
Activity
  Elements And Connectors 83
  Group, Enterprise Architect UML Toolbox 83
Add
  Category To Team Review 216
  Filters To Search 132
  Post To Team Review 217
  Project Items Via Toolbar 95
  Topic To Team Review 217
Add Submenu
  Element Context Menu, Project Browser 31
  Package Context Menu, Project Browser 27
Add to Project Clipboard
  Menu Option (Edit Menu) 40
Add-In
  Connect To 67
  Display Help On 67
  Menu 67
  Search 128
  Submenu 67
  Window 41
Advanced (Element)
  Submenu 52
Align
  Elements From Toolbar 98
Alignment
  Submenu 53
Analysis
  Elements and Connectors 88
  Group, Enterprise Architect UML Toolbox 88
Anti-Aliased Rendering
  Of Diagrams 195
Anti-Aliased Text
  In Diagrams 195
Appearance (Element)
  Autosize 53
  Submenu 53
Application
  Connector 86
Application Look Dialog 207
Application Workspace 4
Arrow
  Quick Linker 186
Assign
  Information to Tagged Values 165
  Tagged Values To Item 164
Attribute
  Context Menu, Project Browser 32
  Private, Icon 23
  Protected, Icon 23
Audit History Tab
  On Output Window 111, 168
Auto Save
  Diagram Changes 198
Autocompletion List
  Code Editor, Common 176
Autohide
  Reveal Autohidden Window 138
  Turn Off 138
  Turn On 138
  Windows 138
Automatic
  Save Of Diagram Changes 198
Automatic Indentation
  Code Editor, Common 173
Automatically Hidden Windows
  Animate 42

- B -

Batch Generate
  Elements With Code 53
Bookmark
  Clear 40
  Clear All 40
  Selected Element 40
Bookmark Selected
  Menu Option (Edit Menu) 40
Bookmarks
  Code Editor, Common 173
Brace/Bracket Matching
  Code Editor, Common 173
Browser
  Element 154
Build And Run Submenu
  Package Context Menu, Project Browser 28
Business
  Scenarios & Requirements 158
Business Process
  Analysis 10
  Model, Template 10

© 1998-2010 Sparx Systems Pty Ltd

- C -

Calltips
Code Editor, Common 176
Cancel
Validation 47
Category
Add To Team Review 216
Create 216
Delete 214
Checked In Package
Icon 23
Checked Out Package
Icon 23
Class
Elements And Connectors 79
Group, Enterprise Architect UML Toolbox 79
Model Template 13
Class Diagram
Edit Elements 52
Clear All Bookmarks
Menu Option (Edit Menu) 40
Clear Project Clipboard
Menu Option (Edit Menu) 40
Clear Selection
Menu Option (Edit Menu) 40
Clipboard
Copy Team Review Path To 222
Clipboard File Format
Define 190
Close
Full Screen 69
Close Project
Menu Option (File Menu) 35
Code
Generation, Toolbar 96
Import, Select Language 96
Language, Set Default 96
Code Editor, Common
Autocompletion List 176
Automatic Indentation 173
Bookmarks 173
Brace/Bracket Matching 173
Calltips 176
Commenting 173
Configuration 173
Configure Search Options 182
Context Menu 182
Cursor History 173
IME 182
Input Method Editor 182
Intellisense 176
Key Bindings 177
Line Selection 173
Mouseovers 176
Scope Guides 173
Search Facility 182
Zooming 173
Code Engineering Submenu
Package Context Menu, Project Browser 28
Collaboration
Elements and Connectors, Now Communication 81
Color
Of Communication Messages 204
Combine
Windows In One Frame 136
Commands
Add To Toolbar 57
Change Icon Appearance 57
Customize 57
Remove From Toolbar 57
Commenting
Code Editor, Common 173
Common
Connectors 77
Elements 77
Group, Enterprise Architect UML Toolbox 77
Relationships 77
Communication
Elements and Connectors 81
Group, Enterprise Architect UML Toolbox 81
Communication Message
Colors 204
Community Site 6
Component
Elements And Connectors 84
Group, Enterprise Architect UML Toolbox 84
Model Template 14
Composite
Elements And Connectors 81
Group, Enterprise Architect UML Toolbox 81
Configuration
Code Editor, Common 173
Configure
Local Options 189
Options 189
User Settings 189
Connections
In Relationships Window 157
In Team Review 223
To Other Team Reviews 223
Window 157
Connector

Connector
Application 86
Create From UML Toolbox 71
Create With Element Using Quick Linker 186
Create With Quick Linker 188
Create, Same Type As Previous 49
Display Options 203
Extension (Profile Toolbox) 86
Generalize (Profile Toolbox) 86
Invoke 79
Line Color 192
Notes 160
Precede 79
Redefinition 86
Tagged Value (Profile Toolbox) 86
Console
Commands, Scripter Window 152
Tab, Scripter Window 152
Constraint
In Scenarios & Requirements Window 158
Contents Submenu
Package Context Menu, Project Browser 29
Context Menu
Apply «Stereotype» Option 71
Attribute, Project Browser 32
Code Editor, Common 182
Configure Code Editor Search Options 182
Diagram, Project Browser 31
Element, Project Browser 30
Main 33
Method, Project Browser 32
Model Views 115
Model, Project Browser 23
Operation, Project Browser 32
Package, Project Browser 25
Scripter Window 149
Team Review Options 214
Copy
Model 36, 37, 38
RTF Bookmark To Clipboard 27, 31
Correct Spell Checked Words 226
Create
Connector With Quick Linker 188
Element And Connector With Quick Linker 186
Favorites Folder, Model View 114
Favorites Folder, Model View (Context Menu) 115
Post In Team Review 217
Root Node, Model View 114
Root Node, Model View (Context Menu) 115
Search Definition 128
Slideshow, Model View 114
Slideshow, Model Views 119
Team Review Category 216
Team Review Topic 217
Views Folder, Model View 114
Views Folder, Model View (Context Menu) 115
Views, Model View 114
Views, Model View (Context Menu) 115
Cross Reference
Trace With Traceability Window 160
Current Connector
Toolbar 99
Current Element
Toolbar 98
Cursor History
Code Editor, Common 173
Custom
Elements and Connectors 89
Group, Enterprise Architect UML Toolbox 89
Custom Reference
Trace With Traceability Window 160
Custom Tools
External Applications 62
Customize
Commands 56, 57
Dialog 56
External Tools, Pass Parameters To 63
Keyboard 56
Keyboard Shortcuts 64
Menu Appearance 66
Menus 56
Options 56
Toolbar Option Appearance 67
Toolbars 56, 58
Tools 56, 60
Window 56

- D -

Data
Model Template 13
Data Management
Project Compare 55
Project Integrity 55
Project Transfer 55
Submenu (Tools Menu) 55
Data Modeling
Elements And Connectors 93
Group, Enterprise Architect UML Toolbox 93
Database
Model Template 13
Set Default 96
Database Engineering
Submenu (Project Menu) 47

© 1998-2010 Sparx Systems Pty Ltd

DDL
Display In Source Code Viewer 145
Default
Code Language, Set 96
Database, Set 96
Model Diagram, Cancel 49
Model Diagram, Set 49
Project Browser Behavior 21
User Diagram, Cancel 49
User Diagram, Set 49
Default Diagram
Model, Cancel 49
Model, Set 49
User, Cancel 49
User, Set 49
Default Fonts
Model 196
Set 196
User 196
Default Settings
Options Dialog 189
Default Tools Toolbar 95
Define
Browser Behavior 190
Clipboard Image File Format 190
Email Exchange Server 190
File Directory 190
Home Web Site 190
Internet Search Engine 190
Delete
Category In Team Review 219
Diagram (Single) From Project Browser 31
Diagrams (Multiple) From Project Browser 31
Item In Team Review 219
Menu Options 66
Post In Team Review 219
Reply In Team Review 219
Team Review Category 214
Team Review Post 214
Team Review Resource 214
Team Review Topic 214
Topic In Team Review 219
Delete Selected Element(s)
Menu Option (Edit Menu) 40
Demonstration
Of Enterprise Architect 4
Deployment
Elements and Connectors 85
Group, Enterprise Architect UML Toolbox 85
Model Template 14
Desktop Tools
Add 60
Configure 60
Customize 60
Diagram
Add Link To Team Review Post 221
Anti-Aliased Rendering 195
Anti-Aliased Text 195
Appearance Options 195
Automatic Save 198
Background Color 192
Background Color Gradient 195
Behavior Options 198
Build 107
Business Process 10
Class 13
Class Features, Visibility 193
Close 107
Component 14
Context Menu, Project Browser 31
Copy Image 49
Database Schema 13
Delete From Project Browser 31
Display Options 193
Filter Display Of Elements 170
Find In Project Browser 49, 51
Frame 193
Increase Display Size 195
Lock, General 49
Manage Display 107
Menu 49
Notes, Show/Hide 193
Open From Shortcut 36, 38
Open From Shortcut (Direct Definition) 37
Page Setup 193
Pan And Zoom 170
Print From Project Browser 31
Properties (Diagram Menu) 49
Relationship Traceability For 160
Requirements 10
Save 49
Save Automatically 198
Save Image Of 49
Scale View 195
Scroll Through From Diagram Toolbar 98
Show Element List As 111
Slideshow, Model View 113, 119
Switch 107
Tab Context Menu 106
Tabs 106
Toolbar 98
Use Case 11
View 107
Water Mark 195
Zoom From Diagram Toolbar 98
Diagram Caption Bar

Diagram Caption Bar
Hide 42
Show 42
Diagram Filters
Create 170
Delete 170
Disable 170
Enable 170
Set Effect Of 170
Window 170
Diagram Note
Insert New From Toolbar 97
Dialog
Application Look 207
Group Properties (Script) 152
Recent Post Options 115
Slideshow Properties 119
Dictionary
User (Spell Checker) 226
Discussion Forum
Now Team Review 213
Display
Full Screen 69
Display Options
Connector 203
Diagram 193
Element 201
Link 203
Relationship 203
Display Size
Diagram, Increase 195
Dock Windows
Navigation Compass 136
Dockable
Windows 140
Documentation
Generate, Project Browser Option 22
Documentation (Reports)
Submenu (Project Menu) 44
Documentation Submenu
Package Context Menu, Project Browser 27
Reports 27
Domain
Model Template 11
Organizational Relationships 11
Physical Units 11
Structure 11
Dotted Line Above Menu 139
Dynamic Visual Filters 170

- E -

EABase
Project 3
Edit
Item In Team Review 219
Menu 40
Editor
Team Review 220
Element
Abort Edit Changes 52
Accept Edit Changes 52
Add Link To Team Review Post 221
Add New Item (Inline Features Menu Option) 52
Align From Diagram Toolbar 98
Appearance, Format From Toolbar 99
Apply Image From Clipboard 53
Background Color 192
Browser Window 154
Connectors In Relationships Window 157
Constraint, Attach 52
Context Menu, Project Browser 30
Coordinates On Status Bar 103
Create From UML Toolbox 71
Create With Quick Linker 186
Create, Same Type As Previous 49
Default Appearance 53
Delete Item From 52
Display Options 201
Fill Color 192
Fill Color Gradient 195
Filter Display On Diagram 170
Find In Diagram Menu Options 30
Find In Diagrams, Element List 111
Find In Project Browser 51
Font, Set 53
Hide Type On Diagram 170
Insert New Feature (Inline Features Menu Option) 52
Menu 51
Note, Attach 52
Notes 160
Nudge 53
Paste As Link 41
Paste As New 41
Paste From Clipboard As Metafile 41
Properties Window 140
Relationship Traceability For 160
Scenarios & Requirements 158
Set Alternative Image 53
Shadow Color 192

© 1998-2010 Sparx Systems Pty Ltd

Element
Synchronize Stereotyped Tagged Values From Toolbox 71
Text Color 192
Toolbar 97
View Properties (Inline Features Menu Option) 52
Visibility Options 202
Work On From Element List 108
Work On From Toolbar 98
Element Context Menu
Add Submenu, Project Browser 31
Element List
Context Menu Options 111
Description 108
Options 111
Show As Diagram 111
Toolbar 111
Was Report View 108
Work On Elements 111
Email
Access Within Enterprise Architect 135
Exchange Server, Define Default 190
Encrypt Password (Repository)
At Release 7.1 Of Enterprise Architect 36, 40
Enterprise Architect
Arrange Windows and Menus 136
Autohide Windows 138
Community Site 6
Demonstration 4
Dockable Windows 136, 140
In Action 4
Interfaces For Modeling 2
Keyboard Shortcuts 208
Main Context Menu 33
Main Menu 33
Navigation Compass 136
Online Resources 6
Predefined Search Definitions 131
Project Team Review 213
Spell Checking 225
Start 3
Start Page 6
Tear Off Menus 139
Tools And Features For Modeling 2
User Interface 4
Web Services Access 135
Workspace Status Bar 103
Enterprise Architect UML Toolbox 71
Activity Group 83
Analysis Group 88
Class Group 79
Common Group 77
Communication Group 81
Component Group 84
Composite Group 81
Custom Group 89
Data Modeling Group 93
Deployment Group 85
Interaction Group 82
Maintenance Group 90
Metamodel Group 87
Object Group 80
Profile Group 86
Requirement Group 90
Shortcut Menu 75
State (Machine) Group 83
Timing Group 82
Use Case Group 79
User Interface Group 91
WSDL Group 92
XML Schema Group 92
Execution Analysis
Submenu (Project Menu) 46
Execution Analyzer
Submenu (View Menu) 42
Exit
Menu Option (File Menu) 35
Explorer
Open 54
External File
Add Link To Team Review Post 221
External Tools
Open 62
Pass Parameters To 63

- F -

Favorites
Add To Resources Window 145
Delete From Resources Window 145
Drag Objects Into 113, 117
Elements, Resources Window 145
Folder, Resources Window 145
Model Views Folder 113
View Properties In Resources Window 145
Fields and Conditions
In Search 133
File
Menu 35
Filters
Add To Search 132
AND 125
Diagram, Display Of Elements 170
Dynamic Visual 170

Filters
OR 125
Search 125
Find
Diagram In Project Browser 49, 51
Element In Diagrams, Element List 111
Element In Project Browser 51
Find In Diagram
Element Context Menu, Project Browser 30
Find in Project
Menu Option (Edit Menu) 40
Find In Project Browser
Search Option 25
Floating Toolbar Buttons
Display 201
Floating Windows 136
Fonts
Set Model Default 196
Set User Default 196
Format
Element Appearance From Toolbar 99
Toolbar 99
Forum
Discussion, Now Team Review 213
Frame
Combine Windows In 136
Remove Windows From 136
Tabbed 136
Free Sorting
On Project Browser 21
Full Screen
Close 69
Display 69

- G -

General Options
Set For Project 190
Generate
Report On Elements 108
Report On Project 108
RTF Report From Element List 108
Generate RTF Documentation
From Model Search 124
Getting Started
Start Enterprise Architect 3
Glossary
Create Item From Notes Text 160
Hyperlink Term From Notes 160
Insert Item In Text 160
Group Properties Dialog
Script 152

- H -

Help
Add-In 67
Display On Add-Ins 67
For Tagged Values 165
Menu 70
Tasks Pane Topics 168
Hide
Code Execution (Project Menu) 46
Diagram Caption Bar 42
Project Browser 19
Toolbox 71
Hyperlink
Insert New From Toolbar 97

- I -

Icon
Attribute Private 23
Attribute Protected 23
Checked In Package 23
Checked Out Package 23
Namespace Root Package 23
Operation Private 23
Operation Protected 23
Version Controlled Package 23
IME
Code Editor 182
Import
Code, Select Language 96
Technology Files 54
Import/Export
Submenu (Project Menu) 49
Import/Export Submenu
Package Context Menu, Project Browser 29
Increase Text Display Size 140
Inline Features
Submenu (Element Menu) 52
Input Method Editor
Code Editor 182
Intellisense
Code Editor, Common 176
In Script Editor 183
Keystrokes, Script Editor 183
Interaction
Elements and Connectors 82
Group, Enterprise Architect UML Toolbox 82
Internet Search Engine
Access Within Enterprise Architect 135
Define Default 190

© 1998-2010 Sparx Systems Pty Ltd

Introduction
To Quick Linker 186
Invoke
Connector 79

- J -

JavaScript 148, 149
JScript 148, 149

- K -

Key
Combinations 208
Missing Combination 56
Key Bindings
Code Editor, Common 177
Keyboard
Accelerator Map 208
Missing Combination 56
Shortcuts 208
Shortcuts, Customize 64
Shortcuts, Reset 64

- L -

Label
Display Under Toolbar Icons 58
Show And Hide In Toolbox 73
Language
For Spell Check 227
Legend
Insert New From Toolbar 97
Level Numbering
Show In Project Browser 25
Line Selection
Code Editor, Common 173
Link
Display Options 203
Window 157
Logical Model 13
Login
As Different User (Security) 48

- M -

Macros
SQL Search 128
Main Context Menu 33
Main Menu 33
Maintenance
Elements And Connectors 90
Group, Enterprise Architect UML Toolbox 90
Model Template 17
Make Same
Submenu 53
Manage .EAP File
Submenu (Tools Menu) 55
MDA Transformation
Project Menu Option 47
MDG Technology
Active, Automatically Pinned Pages 73
Menu
Add-Ins 67
Context 4
Customize Appearance 66
Delete Options 66
Diagram 49
Edit 40
Element 51
File 35
Help 70
Main 33
Main Context 33
Missing Option 56
Other Element Tools 41
Other Project Tools 41
Project 44
Rearrange 136
Set Animation 66
Set Shadowing 66
Settings (Project) 68
Tear Off 139
Toolbars (View Menu Option) 41
Tools 54
View 41
Visual Styles (View Menu Option) 41
Window 69
Menu Option (File Menu)
Close Project 35
Exit 35
New Project 35
Open Project 35
Open Source File 35
Page Setup 35
Print 35
Print Preview 35
Print Setup 35
Reload Current Project 35
Save Project As 35
Message
Communication, Coloring 204
Metamodel
Elements and Connectors 87

Metamodel
Group, Enterprise Architect UML Toolbox 87
Method
Context Menu, Project Browser 32
Metrics
Project Management Window 167
Model
Context Menu, Project Browser 23
Default Fonts 196
Remove Recent 7
Root Node 23
Shortcut 36
Shortcut (Capture Current Environment) 38
Shortcut (Direct Definition) 37
Model Context Menu
Package Control Submenu, Project Browser 25
Model Node
Package Control Submenu, Project Browser 25
Model Pattern
Introduction 9
Model Search
Access From Add-In 123
Access From MTS File 123
Access From Shortcut 36, 38, 123
Access From Shortcut (Direct Definition) 37
Add Data Columns 121
Add Filters 132
Create Search Definition 128
Export Search Definitions 125
External Access 123
Find Object In Diagrams 124
Find Object In Project Browser 124
Generate RTF Documentation 124
Group Results 121
Hyperlink To 123
Import Search Definitions 125
Introduction 121
Manage 125
Notes Options 121
Operate On Objects In Results 124
Options 121
Process Results Of Search 121, 124
Remove Data Columns 121
To Populate Model Views 117
Toolbar Options 121
Use 123
View 121
Model Template
Business Process 10
Class 13
Component 14
Database 13
Deployment 14
Domain 11
Introduction 9
Logical 13
Maintenance 17
Physical 14
Project 17
Relational Database 13
Requirements 10
Testing 16
Use Case 11
Model Transformations
Submenu (Project Menu) 47
Model Validation
Submenu (Project Menu) 47
Model Views
Context Menu Options 115
Define Search 117
Delete (Context Menu) 115
Delete (Toolbar) 114
Display Recent Postings 117
Enable Technology-Defined View 117
Export As XML 117
Favorites 113
Favorites Folder, Create (Context Menu) 115
Favorites Folder, Create (Toolbar) 114
Import As XML 117
Move Objects Between Views 117
Move Objects Into Favorites 117
My Views 113
Operations 117
Postings From Team Review 113
Properties 117
Recent Discussions 113
Recent Post Options 115
Refresh (Toolbar) 114
Refresh Search 117
Root Node, Create (Context Menu) 115
Root Node, Create (Toolbar) 114
Slide Show, Run (Manual) 119
Slideshow 113
Slideshow Folder, Create (Toolbar) 114, 119
Slideshow, Automate 119
Technology-Defined 113
Toolbar Options 114
Use Objects In Views And Favorites 117
View, Create (Context Menu) 115
View, Create (Toolbar) 114
Views 113
Views Folder, Create (Context Menu) 115
Views Folder, Create (Toolbar) 114
Window 113

© 1998-2010 Sparx Systems Pty Ltd

Modeling
Enterprise Architect Tools and Features 2
Modify
Tagged Values 164
Mouseovers
Code Editor, Common 176
Move
Elements By Increments 53
Nudge Elements 53
Package Contents Up Or Down 20
Submenu 53
Multiplicity 11

- N -

Namespace
Root Package Icon 23
Navigate
Diagram 170
Navigation Compass 136
New Project
Menu Option (File Menu) 35
New Search Query 128
Note
Create Project Glossary Item 160
For Attribute 160
For Connector 160
For Diagram 160
For Element 160
For Operation 160
Hyperlink Glossary Term 160
Insert Glossary Item 160
Insert New From Toolbar 97
Spell Check 160
Tab 160
Window 160
Notelink
Insert New From Toolbar 97
Nudge
Elements 53

- O -

Object
Appearance, Options 201
Elements And Connectors 80
Group, Enterprise Architect UML Toolbox 80
Online Resources
Access From Tasks Pane 168
Submenu 70
Open
External Tools 62
Open Project
Menu Option (File Menu) 35
Open Source Directory
Element Code 53
Open Source File
Menu Option (File Menu) 35
Operation
Context Menu, Project Browser 32
Private, Icon 23
Protected, Icon 23
Options
Element Visibility 202
Project Views 107
Views Of Project 107
Visual Styles/Themes 207
Options Dialog
Appearance Options 195
Communication Message Coloring 204
Connector Settings 203
Diagram Behavior 198
Diagram Settings 193
General Settings 190
Introduction 189
Links Settings 203
Object Appearance 201
Object Appearance, Default Fonts 196
Object Appearance, Element Visibility 202
Sequence Diagram Options 199
Standard Colors 192
XML Specifications 206
Order
Package Contents 20
Other Element Tools
Submenu 42
Other Project Tools
Submenu 42
Output Window
Context Menu 168

- P -

Package
Context Menu, Project Browser 25
Icon Overlays 23
Package Context Menu
Add Submenu, Project Browser 27
Build And Run Submenu, Project Browser 28
Code Engineering Submenu, Project Browser 28
Contents Submenu, Project Browser 29
Documentation Submenu, Project Browser 27
Import/Export Submenu, Project Browser 29

Package Control Submenu
Model Node Context Menu, Project Browser 25
Page
Setup, Menu Option (File Menu) 35
Pan And Zoom
Diagram 170
Window 170
Parse
Source Code Files In Viewer 145
Password Encryption (Repository)
At Release 7.1 Of Enterprise Architect 36, 40
Paste Elements
As Link 41
As New 41
From Clipboard As Metafile 41
Menu Option (Edit Menu) 40
Submenu (Edit Menu) 41
Physical Model 14
Pin
Connector End Point 99
Connector Start Point 99
Toolbox Pages 73
Position Elements 53
Post
Add To Team Review 217
Create In Team Review 217
Create Reply 219
Delete 214
Delete In Team Review 219
Edit In Team Review 219
Reply To In Team Review 219
Precede
Connector 79
Print
Diagram (Single) From Project Browser 31
Diagrams (Multiple) From Project Browser 31
Menu Option (File Menu) 35
Preview, Menu Option (File Menu) 35
Setup, Menu Option (File Menu) 35
Print Preview
Display 35
Multiple Pages 35
Process
Model Template 10
Modeling 10
Profile
Elements And Connectors 86
Group, Enterprise Architect UML Toolbox 86
Project
Browser 19
EABase 3
Explorer 19
Glossary 142
Issues 142
Items, Add Via Toolbar 95
Menu 44
Model Template 17
Remove Recent 7
Spell Checking 225
Statistics, View 44
Tasks 142
Toolbar 95
Use The Model Search 123
View 19
Project Browser
Attribute Context Menu 32
Collapse Contents 29
Default Behaviour 21
Diagram Context Menu 31
Element Context Menu 30
Element Context Menu, Add Submenu 31
Expand Contents 29
Free Sorting 21
Hide And Show 19
Icon Overlays 23
Introduction 19
Method Context Menu 32
Model Context Menu 23
Model Node, Package Control Submenu 25
Move Items Within 19
Operation Context Menu 32
Order Package Contents 19
Package Context Menu 25
Package Context Menu, Add Submenu 27
Package Context, Build And Run Submenu 28
Package Context, Code Engineeiing Submenu 28
Package Context, Contents Submenu 29
Package Context, Documentation Submenu 27
Package Context, Import/Export Submenu 29
Reload Current Package 29
Reset Sort Order 29
Scripts 152
Selective Collapse of Packages 19
Show Level Numbering 25
Show Stereotypes 21
Toolbar 22
Views 19
Project Discussion Forum
Now Team Review 213
Project Glossary
Create Item From Notes Text 160
Hyperlink Term From Notes 160
Insert Item In Text 160

© 1998-2010 Sparx Systems Pty Ltd

Project Management
Metrics 167
Resources 167
Risks 167
Toolbar 167
Window 167
Project Search
Add Filters 132
Conditions 133
Create Search Definition 128
Fields 133
Manage 125
Search Definitions 125
Project Settings
Configure (Settings Menu) 68
Project Team Review
Access 213
Add External File Link To Post 221
Add New Category 216
Add New Post 217
Add Object Link To Post 221
Add Team Review Link To Post 221
Connections To Other Team Reviews 223
Copy Path To Clipboad 222
Create Category 216
Create Post 217
Create Reply 219
Delete Item 219
Edit Item 219
Editor 220
Icons 213
Introduction 213
Load Data When Required 223
Loading Behavior 223
Mark All Posts Unread 223
Options 223
Preload 223
Reply To Post 219
Search 222
Was Discussion Forum 213
Properties
Window (Element) 140
Proxy
(Shortcut) File 36

- Q -

Query Builder
Search Definition 128
Quick Linker
Arrow 186
Create Connector 188
Create Element And Connector 186
Introduction 186
Options 186

- R -

Recent Discussions
Concerning Model View Items 113
Recent Post Options Dialog 115
Recent Postings
Display 117
Redefinition
Connector 86
Registry Settings 189
Relational Database
Model Template 13
Relationship
Application 86
Display Options 203
Extension (Profile Toolbox) 86
Generalize (Profile Toolbox) 86
Redefinition 86
Tagged Value (Profile Toolbox) 86
Window, Context Menu 157
Relationship Matrix
Access From Shortcut 36, 38
Access From Shortcut (Direct Definition) 37
Reload Current Project
Menu Option (File Menu) 35
Remove
Recent Project 7
Reply
To Post In Team Review 219
Report View
Now Element List 108
Repository
Encrypt Password 36, 40
Requirement
Analysis 10
Elements And Connectors 90
Group, Enterprise Architect UML Toolbox 90
Internal, In Scenarios & Requirements Window 158
Model Template 10
Modeling 10
Requirements Management 10
Template 10
Reset Options
Source Code Language 22
Resource
Add To Team Review Item 214
Delete From Team Review Item 214

Resources
Documents 143
Favorites Folder 143, 145
Matrix Profiles 143
MDG Technologies 143
Project Management Window 167
Scripts 143
Templates 143
UML Patterns 143
UML Profiles 143
Window 143
XSL Stylesheets 143
Rich Text Format
Copy Bookmark To Clipboard 27
Rich Text Format Report
Generate From Element List 108
Rich Text Notes
Formatting 104
Keyboard Shortcuts 104
Toolbar Options 104
Risks
Project Management Window 167
RTF
Copy Bookmark To Clipboard 27, 31
RTF Report
Generate From Element List 108
Runtime Object
In Script Editor 183

- S -

Save
Diagram Changes Automatically 198
Save As
Copy 36
Shortcut 36
Save Project As
Menu Option (File Menu) 35
Save Project As (File Menu Option)
Copy 37, 38
Shortcut (Capture Current Environment) 38
Shortcut (Direct Definition) 37
Scale Diagram View 195
Scenario
In Scenarios & Requirements Window 158
Scenarios & Requirements
Toggle Window/View 158
Window 158
Scope Guides
Code Editor, Common 173
Script
Commands 152
Console 152
Copy 149
Create 149
Delete 149
Engines 148
Execute 149
Group 148, 149
Group Type 152
JavaScript 148, 149
JScript 148, 149
Local 148, 149
Move 149
Normal 152
Project Browser 152
Search 152
Template 148, 149
User 148, 149
VBScript 148, 149
Workflow 152
Worklow 149
Script Editor
Context Menu 182
Script Objects 183
Scripter Window 148
Console Tab 152
Console Toolbar 152
Context Menu 149
Editor 183
Group Properties Dialog 152
Intellisense 183
Runtime Objects 183
Script Editor 183
Script Objects 183
Scripts Tab 149
Toolbar 149
Type Libraries 183
Search
A Package 123
Code Editor Facility 182
Conditions 133
Configure Code Editor Context Menu Options 182
Definitions 125
Definitions, New 128
Definitions, Predefined 131
Element Features 125
Fields 133
Filters 125
List, Predefined Searches 131
Macros, SQL 128
Manage 125
Model 125
Project 123, 125

© 1998-2010 Sparx Systems Pty Ltd

Search
Project, Create Search Definition 128
Query, New 128
Results, Manipulate 121
Scripts 152
Simple 125
Team Review 222
The Model Search 123
User Defined, Storage 128
Within Project Browser 22
Search Filters
Add To Search 132
Search Project
Add Filters 132
Security
Submenu (Project Menu) 48
Select All
Menu Option (Edit Menu) 40
Select By Type
Menu Option (Edit Menu) 40
SELECT Statement
SQL Search 128
Sequence
Elements and Connectors 82
Sequence Diagram
Display Options 199
Set
Default Tree Behavior 21
Settings
Menu, Configure 68
Shortcut
Clear 38
Diagram (Capture Current Environment) 38
Menu, Enterprise Architect UML Toolbox 75
Model (Capture Current Environment) 38
Model Search (Capture Current Environment) 38
Relationship Matrix (Capture Current Environment) 38
Team Review (Capture Current Environment) 38
Shortcut To
Diagram 36
Diagram (Direct Definition) 37
Model 36
Model (Direct Definition) 37
Model Search 36
Model Search (Direct Definition) 37
Relationship Matrix 36
Relationship Matrix (Direct Definition) 37
Team Review 36
Team Review (Direct Definition) 37
Show
Code Execution (Project Menu) 46
Diagram Caption Bar 42
Duplicate Tagged Values 166
Project Browser 19
Toolbox 71
Show Grid
Diagram Menu Option 49
Size
Elements By Increments 53
Submenu 53
Slideshow
Diagram Presentations 113, 119
Model View 113, 119
Of Diagrams, Automate 119
Properties Dialog, Model View 119
Remove From Model View 119
Run, Diagram View 119
Run, Full Screen View 119
Stop 119
Snap to Grid
Diagram Menu Option 49
SOA WSDL
Elements And Connectors, Enterprise Architect 92
SOA XSD
Elements and Connectors, Enterprise Architect 92
Source Code
Display In Source Code Viewer 145
Editor 145
Engineering, Project Browser Options 22
File Parsing In Source Code Viewer 145
Generate For Method In Project Browser 32
Generate For Operation In Project Browser 32
Open Directory, Project Browser Menu Option 30
Reset Language 22
Synchronize With Method In Project Browser 32
Synchronize With Operation In Project Browser 32
Toolbar Buttons 145
View For Method In Project Browser 32
View For Operation In Project Browser 32
View, Project Browser Menu Option 30
Viewer 145
XML Structure Tree 145
Source Code Engineering
Submenu (Element Menu) 53
Submenu (Project Menu) 45
Space Evenly
Submenu 53
Sparx Systems
Enterprise Architect Community Site 6

Spell Check
Correct Words 226
Dictionaries 227
Dictionary 226
Language 227
Model 225
Perform 225
Project 225
Single Package 225
Spell Checking
Automatic, Disable 225
Automatic, Enable 225
Introduction 225
Spelling
Language (Tools Menu) 54
Spelling Language
Select 227
SQL
Custom Searches 128
Editor 128
Search Macros 128
Search, SELECT Statements 128
Standard Colors
Attribute 192
Connector Line 192
Diagram Backgound 192
Element Fill 192
Element Line 192
Method 192
Note Text 192
Operation 192
Options 192
Screen 192
Shadow 192
Start
Application 3
Enterprise Architect 3
Start Page 6
State (Machine)
Elements and Connectors 83
Group, Enterprise Architect UML Toolbox 83
Status Bar
Element Coordinates 103
Enterprise Architect Workspace 103
Hide 103
Show 103
Zoom Control 103
Stereotype
Show On Project Browser 21
Submenu
Add-In 67
Advanced (Element) 52
Alignment 53
Appearance (Element) 53
Data Management (Tools Menu) 55
Database Engineering (Project Menu) 47
Documentation (Project Menu) 44
Execution Analyzer (Project Menu) 46
Execution Analyzer (View Menu) 42
Import/Export (Project Menu) 49
Inline Features (Element Menu) 52
Make Same 53
Model Transformations (Project Menu) 47
Model Validation (Project Menu) 47
Move 53
Online Resources 70
Other Element Tools 42
Other Project Tools 42
Paste Elements (Edit Menu) 41
Security (Project Menu) 48
Size 53
Source Code Engineering (Element Menu) 53
Source Code Engineering (Project Menu) 45
Space Evenly 53
Toolbars 42
Version Control (Project Menu) 48
Visual Styles 42
Web Services (Project Menu) 47
XML Schema (Project Menu) 48
Z-Order 53
Sunmenu
Manage .EAP File (Tools Menu) 55
Switch
Diagram 107
Synchronize
Batch With Code 53
Class With Code 53
Package With Source, (Project Menu Option) 45
Syntax Check
For UML, Option 193
System
Project Glossary 142
Project Issues 142
Project Tasks 142
Tabs 142
Window 142
System Boundary
Insert New From Toolbar 97

- T -

Tab
Asterisks 106
Audit History In Output Window 168

© 1998-2010 Sparx Systems Pty Ltd

Tab
Context Menu 106
Diagram 106
Tabbed Frame
Combine Windows In 136
Remove Window From 136
Tagged Value
Assign Information To 165
Assign To Item 164
Duplicate Values 162
Fully-Qualified Value 162
Model Components And 162
Modify 162
Modify Value 164
Show Duplicates 166
Toolbar 162
Types Of Value Field 164
View 162
What Is A? 162
Window 162
Tasks Pane
Getting Started 168
Tools 168
Window 168
Team Review
Access 213
Access From Shortcut 36, 38
Access From Shortcut (Direct Definition) 37
Add External File Link To Post 221
Add New Category 216
Add New Post 217
Add New Topic 217
Add Object Link To Post 221
Add Team Review Link To Post 221
Capture Diagram Image As Resource 221
Connections To Other Team Reviews 223
Context Menu Options 214
Copy Path To Clipboad 222
Create Category 216
Create Post 217
Create Reply 219
Create Topic 217
Delete Category 214
Delete Item 219
Delete Post 214
Delete Resource 214
Delete Resources 221
Delete Topic 214
Edit Item 219
Editor 220
Export Package As Resource 221
Icons 213
Import Resource Package 221
Introduction 213
Load Data When Required 223
Loading Behavior 223
Mark All Posts Unread 223
Options 223
Postings in Model Views 113
Preload 223
Reply To Post 219
Resources 221
Search 222
Tab 213
View Diagram Image Resource 221
Was Discussion Forum 213
Window 213
Tear Off Menus 139
Technology-Defined Model View
Set Up 117
Template
Script 148, 149
Test
Model Template 16
Testing
Model Template 16
Text Element
Insert New From Toolbar 97
Theme
Microsoft Office Styles 207
Microsoft Visual Basic Styles 207
Options 207
Visual Style 42
Timing
Elements and Connectors 82
Group, Enterprise Architect UML Toolbox 82
Toolbar
Add Commands 57
Change Command Icon Appearance 57
Code Generation 96
Console Tab, Scripter Window 152
Create 58
Current Connector 99
Current Element 98
Customize 58
Default Tools 95
Diagram 98
Display Labels 58
Docked 94
Element 97
Element List 111
Floating Buttons, Display 201
Format (Element Appearance) 99
Hide 58
Large Icons 67
Manage Searches 125

Toolbar
Missing Icon 56
Model Search 121, 124
Options, Customize Appearance 67
Project 95
Project Browser 22
Remove 58
Remove Commands 57
Rename 58
Rich Text Notes 104
Screen Tips 67
Scripter Window 149
Show 58
Source Code Viewer 145
Submenu 42
UML Elements 97
Workspace 94
Workspace Layouts 100
Toolbar Customize Button
Show/Hide 42
Toolbox
Shortcut Menu 75
Tools
Custom 62
External Applications 62
Pass Parameters To External Tools 63
Tools Menu 54
Topic
Add To Team Review 217
Create 217
Delete 214
Traceability
For Diagram 160
For Elements 160
Window 160
Transformation Dependency
Trace With Traceability Window 160
Type Libraries
For Script Editor 183

- U -

UML
1.5 201
Syntax Checking Option 193
UML Business Process Model
In Enterprise Architect 10
UML Class Model
In Enterprise Architect 13
UML Component Model
In Enterprise Architect 14
UML Database Model
In Enterprise Architect 13
UML Deployment Model
In Enterprise Architect 14
UML Domain Model
In Enterprise Architect 11
UML Element
Toolbar 97
UML Maintenance Model
In Enterprise Architect 17
UML Model Pattern
Introduction 9
UML Model Template
In Enterprise Architect 9
Introduction 9
UML Project Model
In Enterprise Architect 17
UML Requirements Model
In Enterprise Architect 10
UML Testing Model
In Enterprise Architect 16
UML Toolbox
Activity Group 83
Add Stereotype To Diagram Element 71
Analysis Group 88
Appearance Options 73
Class Group 79
Collapse Page 71
Common Group 77
Communication Group 81
Component Group 84
Composite Group 81
Create Elements And Connectors 71
Custom Group 89
Data Modeling Group 93
Deployment Group 85
Expand Page 71
Hide Labels 73
Hide Toolbox 71
Interaction Group 82
Maintenance Group 90
Metamodel Group 87
Object Group 80
Pin Pages 73
Profile Group 86
Requirement Group 90
Set Toolbox Visibility 73
Shortcut Menu 75
Show Labels 73
Show Toolbox 71
State (Machine) Group 83
Synchronize Stereotyped Tagged Values 71
Timing Group 82
Unpin Pages 73

© 1998-2010 Sparx Systems Pty Ltd

UML Toolbox
Use Case Group 79
User Interface Group 91
WSDL Group 92
XML Schema Group 92
UML Use Case Model
In Enterprise Architect 11
Undo
Option (Edit Menu) 40
Unpin
Toolbox Pages 73
Use
Spell Checker 225
Use Case
Elements and Connectors 79
Group, Enterprise Architect UML Toolbox 79
Model Template 11
User
Default Fonts 196
User Defined Searches
Storage 128
User Dictionary
For Spell Checker 226
User Interface
Components 4
Elements and Connectors 91
Group, Enterprise Architect UML Toolbox 91
User Settings
Options Dialog 189
Using Enterprise Architect
Application Workspace 4
Remove Recent Project 7
Start Page 6

- V -

Validation
Cancel 47
VBScript 148, 149
Version Control
Submenu (Project Menu) 48
Version Controlled Package
Icon 23
View
Element List 108
Menu 41
Of Model 113
Project Statistics 44
Submenus 42
View Options 107
Diagram View 107
Element List 108
Visual Styles
Microsoft Office Styles 207
Microsoft Visual Basic Styles 207
Options 207
Select 207
Submenu 42
Themes 42
View Menu Option 41

- W -

W3C XSD
Elements and Connectors, Enterprise Architect 92
W3CWSDL
Elements And Connectors, Enterprise Architect 92
Watermark
Diagrams 195
Web Browser
Home Website, Access 135
Internet Email, Access 135
Web Search Engine, Access 135
Web Service
Submenu (Project Menu) 47
Web Site
Access Any 135
Access Home 135
Home, Define Default 190
What Is
A Tagged Value 162
Window
Add-Ins 41
Autohide 138
Bring To Top 69
Close All 69
Close All Except Current 69
Close Current 69
Combine In Frame 136
Connections 157
Constraints 158
Dockable 136
Element Browser 154
Floating 136
Hide 69
Links 157
Make Active 69
Menu 69
Model Views 113
Notes 160
Output 168
Pan And Zoom 170
Project Management 167

Window
Properties (Element) 140
Rearrange 136
Relationships 157
Reload 69
Remove From Frame 136
Requirements 158
Resources 143
Reveal Autohidden 138
Scenarios 158
Scenarios & Requirements 158
Scripter 148
System 142
Tagged Value 162
Tasks Pane 168
Team Review 213
Traceability 160
Wordpad
Open 54
Workflow
Script, Import 149
Scripts 152
Workspace
Toolbars, Docked 94
Toolbars, Introduction 94
Workspace Layouts
Apply 100
Capture 100
Customize 100
Delete 100
Manage 100
Select 100
Show/Hide From Toolbar 100
System Provided 100
Toolbar 100
Upgrade Customized 100
User Defined 100
View Menu Option 41
WSDL
Elements And Connectors 92
Group, Enterprise Architect UML Toolbox 92

- X -

XML
Code Page 206
Default XMI Version 206
Documents, Default Editor 206
Set Default XML Directory 206
Set Default XML Editor 206
Specifications, Options Dialog 206
Structure Tree In Source Code Viewer 145
XMI 1.0 Prefix 206
XML Schema
Elements and Connectors 92
Group, Enterprise Architect UML Toolbox 92
Submenu (Project Menu) 48

- Z -

Zoom
Control On Status Bar 103
Diagram From Toolbar 98
Zooming
Code Editor, Common 173
Z-Order
Submenu 53

© 1998-2010 Sparx Systems Pty Ltd

Using Enterprise Architect - UML Modeling Tool

www.sparxsystems.com